ENGINEERING NEWS-RECORD

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Inspecting construction work on the Inter-American Highway in Costa Rica.

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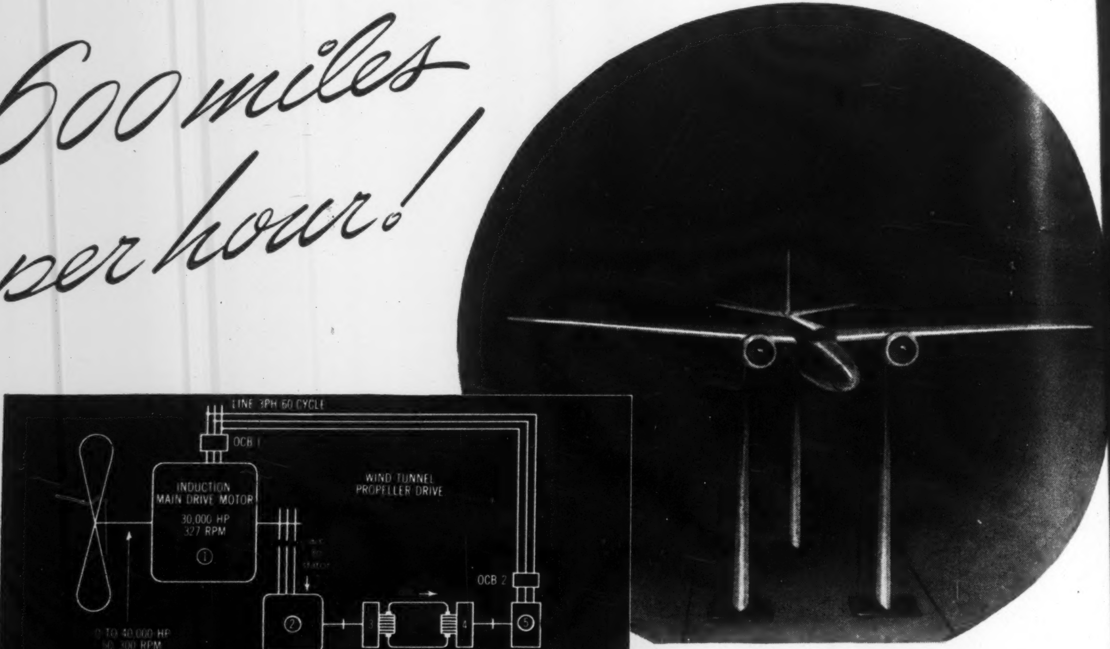
The Wind Tunnel That Drives Ai

600 miles per hour!



The story of a powerful fan drive, with accurate speed control, designed for a wind tunnel in which tomorrow's planes will be tested

TODAY dive bombers fly 400 miles per hour, but designers are testing and perfecting planes which will appreciably exceed even this tremendous speed.

These tests could not be carried on, however, in the wind tunnels in existence a short time ago, for they were not large enough, nor did they provide a great enough wind velocity. General Electric engineers were called upon to design new electrical equipment to meet the requirements in larger wind tunnels. They designed a motor of the wound-rotor type, rated 30,000 hp, 327-rpm synchronous speed, to drive the wind tunnel fan blade. It provides a wind velocity of 600 miles per hour, and its speed control is accurate to 1/4 of one per cent!

The entire system, of which this motor is a part, is shown in the diagram. Field control of the d-c motors 3 and 4 is employed, and they in turn control the speed of the synchronous motor 2. An increase or decrease in the speed of 2 results in a decrease or increase in the speed of the fan blade. Accurate speed control is thus provided in a fan drive of unprecedented size.

Throwing the Load on the Line

This drive has other interesting features as well. One of them is the method of starting, to ease the tremendous load of a 30,000-hp motor onto the main power line. The constant-speed m-g set A is started, and it in turn starts the adjustable-spee set B. The oil circuit breaker 1 i left open. When the m-g set B i running at a speed of 60-cycles, an the main motor 1 is at a standstil the latter acts as a transforme Thus, 60-cycle power exists at bot sides of the oil circuit breaker, an the switch can be closed *with no li disturbance at all.*

By

C. C. CLYMER

Industrial Engineering Department, General Electric Company

Recovering Electricity

Also of interest is the saving i current made possible by this system When the main motor operates a reduced speeds, the slip energy i employed to run the m-g set B, wher this energy is converted to d-c power This power runs the m-g set A where the d-c power is converted t a-c power of line frequency and the returned to the incoming line.

This is another example of the application of experience and skill by General Electric engineers to solve a problem created by today's needs. We would like to work with you on your problems, too. *General Electric, Schenectady, N. Y.*

GENERAL ELECTRIC

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he Week In Engineering and Construction

GINEERING NEWS-RECORD • JUNE 24, 1943 • VOLUME 130 • NUMBER 25

aterworks men are urged to tart postwar plan activity

merican Water Works Association conference learns at materials will be fewer and that WPB officials are ncerned over drought possibilities.

oblems of maintaining water serv- nder wartime restrictions occupied attention at the annual conference e American Water Works Associa- last week, but of almost equal im- ance was the emphasis placed on war planning.

ere was a registration of 1,131 at conference, which was held in Cleve- on June 15-18. Seventy-nine manu- rers, whose exhibits were restricted ulletins and small, easily transported s, were represented. While the at- ance was about 300 short of last year, exhibitors were only four less than e previous meeting in Chicago.

Materials situation critical

anybody came to the conference ex- ing to hear that the situation in re- to waterworks materials procure- t might be getting easier, their hopes demolished by a statement from Krug, director of the Office of War lities, War Production Board. Said Krug:

The job ahead will tax your ingenuity your resourcefulness as the demands war increase. You will be called upon o more and more—and you will have er materials and fewer men to do it h."

or example, reported Mr. Krug, the cations of steel, which have just been de for the third quarter, reveal that ds outstrip demands by 33 percent, all programs must be scaled down by -third. He predicted that enormous mands for materials will continue oughout this year and all of next year ause production plans are predicated a war of long duration.

Saying that the WPB expects water- rks service agencies to perform the iraculous in providing for increased mands, Mr. Krug urged every utility start now with campaigns directed ward reducing consumption of water the public. Unless this is done, many waterworks will be unable to meet the peak demands of late summer with their present facilities; there is absolutely no hope, he said, to secure materials for expansion purposes.

That water service will meet its greatest test this autumn when peak demands occur, was emphasized by Arthur E. Gorman, chief of the water branch, Office of War Utilities, War Production Board. He noted the following country-wide deficiencies in facilities: Supply, 38.5 percent; pumping, 14.4 percent; treatment, 19.7 percent; distribution and storage, 27.4 percent.

Samuel B. Morris
New President of the A.W.W.A.

Rainfall for the last three years has been above normal, said Mr. Gorman, but if a drought should occur the situation would be most serious. In order that the WPB will be ready to cope with such a situation, Mr. Gorman said that all waterworks utilities soon will be requested to furnish a report indicating what additional facilities they might require under drought conditions; this report is to be accompanied with a list of needed materials.

Noting that some water utilities are deferring essential maintenance because of the difficulty in getting parts and materials, Mr. Gorman cautioned against this policy saying that the WPB would make strenuous efforts to satisfy all legitimate requests for repair and maintenance needs.

Postwar planning objectives

Best index of the tremendous interest in postwar planning was the capacity audience of nearly a thousand delegates who attended a special evening session featuring Abel Wolman, consulting sanitary engineer of Baltimore, and president of the association, and Willard Chevalier, publisher of *Business Week* and vice president of the McGraw-Hill Publishing Co.

Decrying the attitude of those who criticize "thinking ahead," Mr. Wolman said that barring some geologic cataclysm there will be a postwar period. Therefore, there is every excuse to start thinking about it. Furthermore, it is common practice for waterworks engineers to think and plan for ten, even twenty years, in advance.

Looking back into the past for an index of what the future may hold in the way of waterworks construction volume, Mr. Wolman reported a $130,000,000 average for the decade 1920-30. Considering present deficiencies and increased demands for service, he stated that an estimate of $220,000,000 yearly for the decade following the war was not unreasonable.

Mr. Wolman urged local governments to get busy now in making an appraisal of needs, preparing detailed plans and specifications and providing for the appropriation of funds to carry out work. Chiding those who object to federal paternalism, yet will not undertake the responsibility of initiating local action, he said.

"There are too many who are willing to do nothing but sit down and wait for a telegram from Washington awarding their city a million dollars—and I would classify 13,000 of the 13,500 waterworks departments in this position."

Postwar outlook

With a warning that unscrupulous groups seek to use public works as a lever to bring great changes in government, Willard Chevalier sketched a broad picture of the role of public works in relation to the postwar outlook.

Ten years ago, he said, we became acquainted with public works as an important cog in the national economy. At that time with ten to twelve million unemployed we were seeking a device to "prime the pump." Expansion of public works was selected for this purpose.

Today we are witnessing the greatest pump priming and manpower absorption ever witnessed as a result of war expansion, all of which is a species of public works. The economic situation, however, is exactly opposite to what it was a decade ago and this will likewise be true in the postwar period.

Mr. Chevalier then pointed out that as soon as the fighting stops, the paramount job will be to meet a huge backlog of civilian demands, which means the production of consumer goods. Therefore, we should not expect to swing too much of our immediate resources into public works activities immediately following the war. If civilian goods in abundance are not provided by quick reconversion of industry, the threat of inflation will be greatly enhanced.

The public works phase of government activity following the war, said Mr. Chevalier, must be on the basis of utility, that is, the construction of works that will provide the maximum of public service. Public works, he asseverated, must not be used as a social rehabilitation device or as an instrument by means of which unscrupulous groups might try to "make America over."

Since most public works are carried out by municipalities, continued Mr. Chevalier, not state or federal agencies, postwar planning for such work properly should originate with the local areas they will benefit. Therefore, postwar planning cannot be centralized because no central agency can draw a blueprint broad enough and flexible enough to meet the needs of every local area.

Water and bombing

The vital importance of water to cities that are bombed was described by Arthur Collins, of the British War Information Service, who said that water supplies played a major role in enabling England to withstand the severe bombing it received.

In this connection, he revealed that England prepared itself for air warfare following the events at Munich. Experts were sent to Spain where they studied the effects of bombing on cities and on the basis of these experiences England made its preparations. Mr. Collins contrasted this with the situation in Germany today; he said that the German people were not prepared for bombing because they had been told this would never happen and as a result they cannot cope with raids as the British do.

Some of the terrible consequences of bombing raids on England were indicated by these statistics:

In London, more than 1,000,000 of the 2,500,000 homes in the city were destroyed leaving 375,000 homeless people; in Coventry 70,000 houses were hit out of the total of 82,000; in Portsmouth 65,000 out of 75,000 houses were bombed.

Steel and War

In speaking of the demands for steel in the third quarter of 1943, J. A. Krug, director of the Office of War Utilities, WPB, told the American Water Works Association that allocations just completed reveal that direct war demands, plus indirect military and basic civilian needs, are one-third greater than the total anticipated supply.

This means, said Mr. Krug, that essential programs must be reduced by 33⅓ percent. He cited steel demand totals of about 21,000,000 tons. The available supply in the third quarter, however, will be only about 15,000,000 tons.

These conditions created exceptionally difficult problems so far as waterworks were concerned and showed the value of making detail plans in advance. For example, the absence of a valve on a large water main could easily result in the loss of hundreds of lives by drowning. And lack of reserve capacity for fire-fighting purposes in some instances required that fire hose be laid as far as 9 miles in order to secure water.

One of the beneficial results of the bombing, said Mr. Collins, is that all artificial, political boundary lines, so far as water service is concerned, have disappeared. As a result, all waterworks plants and systems are interconnected so that service can be rendered over wide areas regardless of town or city jurisdiction.

Notes on technical papers

In discussing army water supply practice, L. H. Kessler, principal civil engineer of the repairs and utilities b
construction division, War Depart
stated that more than 1.000 dif
types of water are encountered at
these differ in chemical analysis
that of practically distilled water to
plies containing up to 2,300 ppm. o
solved solids.

The magnitude of the operating
lems in army water supply wer
flected by the following summar
facilities: number of stations, 1,044
tions using purchased water, 334;
tions having some type of plant, 710
stations having filtration plants, 91.
day, said Mr. Kessler, the army is su
ing 500 million gallons of water.

Much emphasis is being placed o
ducing water consumption at Army
success having been obtained with
use of urinal flush valves to elim
constant flow. At one place the ins
tion of valves reduced water use
55 gallons per capita per day to 26.
monthly saving averages $1,083; the
of the 200 flushometers was only $1

New information on fluorine in
and its effect on teeth—this time f
able—was reported by Dr. H. Tren
Dean, senior dental surgeon of the
Public Health Service. The undesi
dental effects associated with the u
domestic waters containing fluorin
concentrations over one part per mi
are well known, the result being mo
enamel.

Dr. Dean then reported that re
epidemiological studies of dental ca
(decay) rate associated with the us
water, fluoride concentrations of wh
were between 0.0 and 1.0 ppm., pro
evidence indicating that small amount
fluoride probably contribute to optic
dental health. It is believed that sm
amounts of fluorine give hardness
lasting qualities to tooth enamel
protect teeth against decay.

Pipe lining criticized

Objecting to the adoption of the
posed American Standard Specificati
A-21.5, for coal-tar dip coatings for
iron pipe and fittings, L. G. Lenha
general manager of the Detroit dep
ment of water supply, presented a pr
ress report on investigations that his
is undertaking.

Increasing difficulties experienced
Detroit with the falling-off of capac
of pipe due to tuberculation and event
breakage resulting from exterior c
rosion prompted a study of coatings a
linings, using accelerated laborat
tests.

(*Continued on page 6*)

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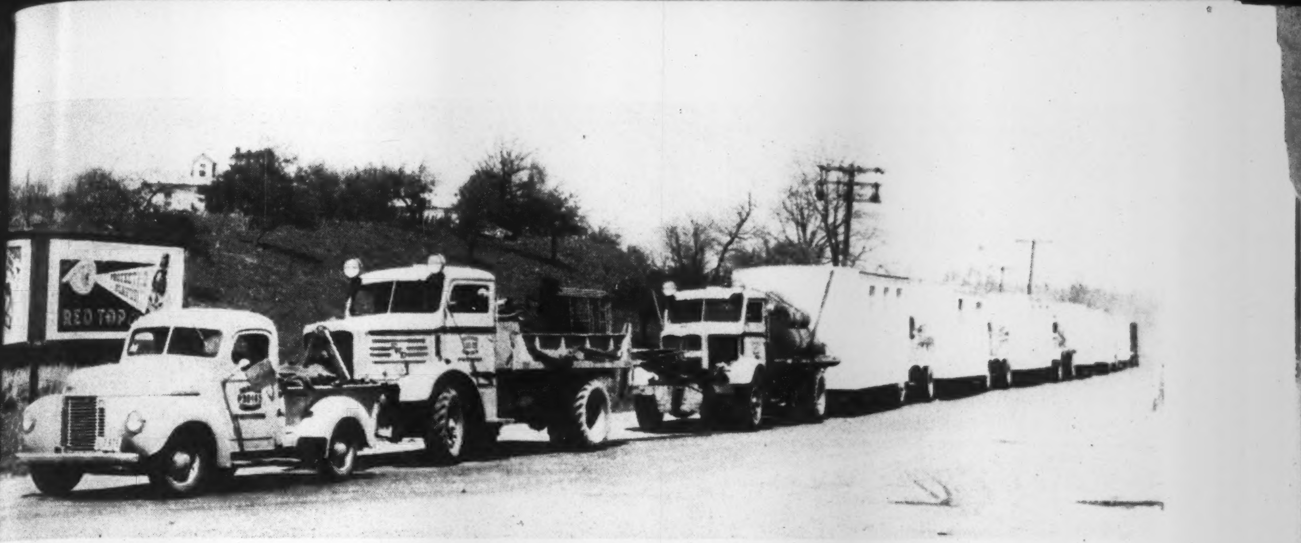

Mobile prison labor unit on West Virginia roads

Enroute to its first job is shown the new bile prison labor unit of the State Road mmission of West Virginia.

One day last month 54 prison trusties reted for work on the Bluefield-Oakvale road ject and brought their cells along with them. The convicts, under the supervision of the commission's prison labor division, rolled into a site near Ingleside in what is believed to be the first convict camp on wheels. The caravan of 36 vehicles includes three that serve as bunk houses, each holding 18 prisoners, a movable dining room, a laundry, a kitchen and a complete shower room.

Officials said the unit would be used on construction jobs which are not large enough to warrant a permanent camp. It can be moved from place to place overnight.

Shipbuilding facilities work nears completion

Practically total completion by mid-mmer of a $900,000,000 program of ilities for shipbuilding and repair is pected by the Navy's Bureau of Yards d Docks, which handles construction all public works and utilities at naval ore establishments. As part of the b of creating the facilities for conucting the greatest fleet in the world, e Bureau has undertaken shipbuilding d repair facilities aggregating $425,-0.000—installations just for Naval esblishments alone. This program is ore than 85 percent completed at esent.

The $425,000,000 represents the cost piers, dredging, shops,, shipways, utilies and other yard facilities. This is clusive of collateral facilities such as arracks for crews of ships undergoing erhaul, dispensaries, cafeterias, offices, dministration buildings and labor board ructures, schools, laboratories and seurity items—all necessary to a shipuilding and repair facility. It also is xclusive of the $511,000,000 drydock rogram, which is primarily for the ervicing and repair of ships, as anounced on April 2 last.

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Canadian engineers ban compulsory bargaining

The case of professional workers has een placed before the Canadian Naional War Labor Board, now conducting n inquiry into all phases of Canada's war labor problems, the professional groups holding that professional workers should not be forced into unions.

A joint submission was made by the Engineering Institute of Canada, the Dominion Council of Professional Engineers, the Corporation of Professional Engineers of Quebec, the Association of Professional Engineers of Ontario, the Canadian Institute of Chemistry, the Canadian Institute of Mining and Metallurgy, and the Royal Architectural Institute of Canada, representing the entire engineering and architectural professions in the Dominion. The brief presented stated that the organizations represented "were unanimously and unalterably opposed to the forcible inclusion of professional men in any compulsory bargaining legislation" that may be planned for labor in Canada.

• • •

Four N. Y. State parkways to be extended

Appropriations totaling $725,000 for plans to extend N. Y. State Parkways were made available on April 23 when Governor Dewey signed the Wicks Bill. The funds are allocated as follows: Taconic State Parkway, from Route 1 near Lafayetteville, for nearly 40 miles north. Estimated cost $320,000.

Northern State Parkway to Deer Park Ave., $76,000.

Southern State Parkway to Bay Shore Road, $48,000.

Palisades Interstate Parkway from the Bear Mountain Bridge traffic circle to the park boundary of the Bear Mountain-Paramount State Park, $280,000.

More water sought for Bonneville and Coulee

Although the reservoir behind Grand Coulee Dam is already filled with 10,-000,000 acre-ft. of water, Army engineers have recommended that the level of Flathead Lake in western Montana, a part of the Columbia River drainage system, be raised 17 ft. to increase its total storage capacity by 3,000,000 acre-ft. to increase the power output at Bonneville and Grand Coulee Dam. Fear has been expressed by Federal agencies that there will be a power shortage in 1944.

However, this plan is meeting opposition from citizens of Montana and Idaho, who believe that raising the level of the lake would inundate 55,000 acres of rich agricultural land and wipe out several towns and large lumber mills. Governor Sam C. Ford has warned Government officials of this probable effect of the proposed raising of the level of Flathead Lake.

The Bureau of Reclamation has been asked to decide what is to be done.

• • •

Cooper Union curtails engineering training

The first major curtailment of civilian training in the engineering schools of the country has been announced by Cooper Union, New York. Effective June 14, only freshmen engineering courses will be offered in the day school for new civilian students, who will be admitted only in limited numbers, according to Dean George F. Bateman.

Inter-American Highway Diary

Editor's Note—Previously published sections of A. N. Carter's diary of his travels over the Inter-American Highway reported his quick trip south along the highway route to Panama. This section reports the first part of his more leisurely trip back over the highway to study the construction operations in more detail. Additional sections of the diary will be published in subsequent issues.

A. N. Carter Assistant Editor, Engineering News-Record

May 9—An enjoyable "fireman's holiday" with Henry Rau, former New York building contractor and now expediter of shipping for the Inter-American Highway organization at the Panama Canal Zone. He drove us out over the 50-mi. Trans-Isthmian Highway, which was completed about a year ago by PRA, but only recently opened to private cars. This road leads through heavy jungle like that of northern Panama and Southern Costa Rica. Deep cuts and 100-ft. fills are common. Because of the type of soil encountered and the rush of construction, maintenance of the road has been severe.

The road leads across Madden Dam and on to Colon. It passes within a short distance of the third locks of the Panama Canal under construction at Gatun. We drove down to see the completed excavation on this huge job, and on the way picked up B. H. Steward, superintendent for Martin Wunderlich and the Oakes Construction Co., the general contractors. Under Steward's direction the excavation was practically completed in April. In January of 1942, a total of 1,227,013 cu.yd. were removed on this 14,000,000-cu.yd. job, which is considered something of a record.

May 10—A busy hot day seeing the engineers in the PRA office and the various other United States engineering organizations in the Panama Canal Zone. Time also permitted a long talk with E. E. Abbott and James Reeves, supervising and designing engineers, respectively, for the third locks project, and my old bosses when I was with the U. S. Engineers at Rock Island, Ill. They made known that construction on the third locks project is now about to be suspended, since this work cannot be completed in time to be of value to the war program.

May 11—The original plan was to fly back to San Jose, Costa Rica, today, but priorities interfered and I had another day to get better acquainted with engineering work in Panama. The morning was spent with V. N. Juliao, director of highways for the federal government of Panama, and included visit with Jose Pasos Diaz, designin engineer for the highway departme of Panama. I also talked with Ramo Antonio Savedra, chief sanitary eng neer for the federal government o Panama, a sanitary engineering gradu ate of Iowa State in 1929.

The afternoon was spent wit Howard D. Schmidt, formerly state sani tary engineer in Tennessee and now i charge of the mosquito-control wor being carried out in Panama by th Office of the Coordinator of Inte American affairs, and with Captain J D. Caldwell, now sanitary engineer fo the coordinator's office and formerl sanitary engineer for the Tennesse Health Department. I also met Guille mo Rodriquez, local sanitary enginee on the same work. With Schmidt an Caldwell I visited several mosquito con trol projects outside the Canal Zone i the vicinity of Panama City.

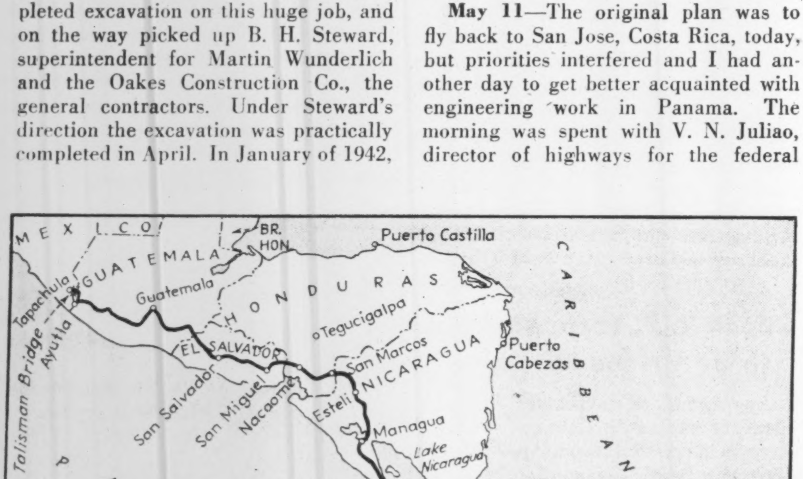
In cooperation with the Panamania government, the coordinator's office i the four months ending June 30, wil have spent $125,000 on mosquito con trol working, including $100,000 fur nished by the United States and $25,00 by Panama.

May 12—In company with Rugg an Belyea, I flew back to San Jose, Costa Rica by Pan-American Airways. We left Panama at 9:30 a.m., and our 4-hou flight included a brief stop at David, a city of 12,000 and Panama's thir largest city.

The airplane trip was most pleasant because I got to ride with Tucke McClure, general manager for the Swinerton-McClure-Vinnell organization, which is building about 90 miles of the Inter-American Highway in Honduras and a large section in Nicaragua. McClure has done much work in Central and South America during the past 12 years.

The afternoon at San Jose was spent with Jack Parkinson, in charge of transportation in the Los Angeles office for the Inter-American Highway work. Not until the many transportation difficulties are outlined does one realize the major problems of transporting in wartime the materials and equipment required to construct 1,530 miles of highway across six countries.

May 13—A full day spent going over the tough 71-mi. section being built south of San Jose by Ralph Mills. The



Route of the Inter-American Highway, which is the strategic link of the Pan-American highway system through Central America. It is 1,530 miles in length.

All kinds of transportation were used on the trip to Dominical. Here shown is the tractor equipped with a frame to carry freight or passengers.

party included Colonel Kelton, Major Thompson, C. H. Wood, project manager for Mills, M. L. Harshberger, resident engineer for PRA, and Norman Wood, assistant resident engineer for the PRA. We left the hotel at seven o'clock and traveled southeastward 12 miles to Cartago over a 20-ft. macadam and concrete roadway built several years ago by the Costa Rican government.

Ralph Mills' job starts at Cartago and includes what is considered the toughest 22 miles on the road. It runs continuously through virgin jungle where oak trees of 120 ft. height and 8 ft. diameter are common. The highway climbs to an elevation of about 6,000 ft. to follow the Continental Divide for several miles and finally continues upward to 10,900 ft., the maximum point on the road. The 71-mi. section is expected to require a total of 13,000,000 cu.yd. of excavation, including 7,000,000 cu.yd. of rock work. For the worst mile, 750,000 cu.yd. of rock excavation will be required.

After a one-hour ride through a scenic, mountainous region we reached Mill's camp at El Empalme. There our party transferred from station wagons to the "Flying Jenny," a tractor equipped with a frame for hauling passengers.

The trip by tractor was over a pioneer road impassable to all other methods of transportation, except perhaps by ox cart or horseback. That 3½ hours were required to travel a little over 7 miles indicates the difficult going in this area. To construct a modern road of the type planned will not only require heavy excavation, but the work may be extremely slow because of the almost continuous rains. John W. Ruth, superintendent for Ralph Mills and a former road builder with his own organization in Kentucky, reported that this year the rains did not end until Feb. 8 and started again early in April. Rain has fallen every afternoon since April except for two days. This extremely short dry period is contrary to an average year, when about three months of dry weather can be expected.

At the end of the slow, tiring tractor ride, which in many places was over a corduroy road and through mud two to three feet deep, we reached Camp Ojo de Agua. The buildings at this camp are of wood frame construction with tarpaulin roofs, which reduced the transportation of lumber over the difficult pioneer road. Since the camp is located at 9,500 ft. elevation, the bunk houses are heated. Water often freezes at the camp, despite its nearness to the equator.

After lunch at Camp Ojo de Agua, we started the 7-mi. return trip. The ride proved very speedy, as we made it in the fast time of three hours. During the return ride, rain fell much of the time.

As we descended the mountains to Cartago, the rain ended. But upon reaching San Jose a heavy downpour began and continued for some time after we arrived. Since it is now raining almost every afternoon here at San Jose, I consider myself lucky to have seen so much of the road before the rains began.

May 15—In company with Major R. J. Allan, I visted the Inter-American Highway construction under way at San Ramon, Costa Rica, about 40 mi. west of San Jose. This work is being done by the Costa Rican federal government with 2,000 laborers. We left San Jose, at 7 o'clock and upon reaching San Ramon we met C. N. Wilczek, resident engineer for several miles of tough grading and location. The road passes through an area where 5,000-ft. mountains are common, and in 23 miles it drops 3,500 ft. For 20 miles there is an average grade of 5 percent.

Wilczek showed us a number of box culverts with the side walls, bottom and top built of irregular hexagonal basalt crystals. The crystals are about 12 in. minimum dimension transversely, and from 2½ to 4 ft. long. To build a culvert 2 ft. 6 in. wide and 4 ft. 8 in. high, the maximum size, the side walls are made 4 ft. wide at the bottom and 2 ft. at the top by placing the crystals horizontally one above another. The roof consists of a single thickness of crystals and it is covered by a minimum of 3 ft. of earth.

These culverts can be built for about half the cost of timber culverts made with lumber sawn by hand near the job. A culvert, 30 ft. long with a 9-sq.ft. opening costs about $500. Furthermore, the stone structures are considered permanent, while the timber structures are expected to have a minimum life of five years.

(To be continued)

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WPB issues new form for start of construction

Form PD-200, the form used to make application for authority to begin construction and for priority assistance, has been replaced by a new form known as WPB-617, the War Production Board has announced.

In addition to the functions performed by the old PD-200 forms, the new WPB-617 constitutes an application for allotment of controlled materials. In order to prevent confusion over use of the forms, since all builders were familiar with PD-200, the new form will carry a notation indicating it replaces PD-200.

Besides combining all functions on one form, WPB-617 will have several other advantages over the old form. It will be letter-size to fit standard typewriters and files. Under the Controlled Materials Plan, any person who made application for authority to begin construction and for priority assistance on Form PD-200, and whose application was approved, was required to file additional forms for controlled materials. When WPB-617 comes into use July 1, the filing of these additional forms will no longer be necessary, since controlled materials will be allotted simultaneously with the granting of authority to begin construction. The authorization form will be CMPL-224, which combines the functions of the P-19 series of orders and forms CMP-4C. The new WPB-617 form may be used prior to July 1.

Waterworks men urged to start postwar plans now

(*Continued from page 2*)

Although the studies are not complete, enough data were secured to convince Mr. Lenhardt that the proposed specifications will not insure an adequate, protective coating. That deficiencies in thickness of the coating, resulting from the dipping process as now practiced, rather than lack of quality in the coal-tar products, is the reason for inadequacy, was one of the tentative conclusions reported by Mr. Lenhardt.

In discussing the report, Thomas H. Wiggin, consulting engineer, New York, said that "everyone recognizes that coal-tar dip is very inferior", but 90 percent of cast-iron pipe is so treated. In facing the question of whether the A.W.W.A. should put out specifications covering coal-tar coatings, said Mr. Wiggin, it must be recognized that 95 percent of the waterworks people want it.

Leonard P. Wood, senior civil engineer of the New York Board of Water Supply, reported that Committee A-21.5 was well aware of the limitations of coal-tar dips, but he believed that the specifications should be published because what they set forth does represent a step in the direction of progress.

Officers and prize winners

Samuel B. Morris, dean of the school of engineering, Stanford University, California, succeeded Abel Wolman as president of the A.W.W.A. Samuel F. Newkirk, Jr., engineer and superintendent of the Board of Water Commissioners, Elizabeth, N. J., became vice president, and William W. Brush, editor of *Water Works Engineering*, New York, was continued in office as treasurer. Mr. Brush thus begins his eighteenth year of service to the association in this post.

New members of the association's board of directors are: B. V. Howe, Arthur P. Kuranz, W. L. McFaul, C. A. McGinnis, Richard Messer, William W. Piatt, M. H. Schwartz, Paul Weir, Thomas L. Young.

Recipients of the John M. Goodell prize, established in 1931 under terms of an endowment by *Engineering News-Record* were W. F. Langlier, associate professor of sanitary engineering, University of California, and H. F. Ludwig, graduate student. The award was made for their paper, "Graphical Methods for Indicating the Mineral Characteristics of Natural Waters", published in the March, 1942, *Journal of the A.W.W.A.*

Earl Devendorf, associate sanitary engineer, New York State Department of Health, was presented with the John Diven Medal, in recognition of his leadership of mutual aid activities in New York State.

The Nicholas S. Hill Cup, awarded to that local section making the largest percentage of gain in membership, was won by the North Carolina group.

Harry E. Jordan, secretary of the A.W.W.A., reported a membership of 4,785, the highest ever achieved. This compares with 4,386 last year. The scheduled place for next year's meeting of the association is Milwaukee.

New officers elected by the Water and Sewage Works Manufacturers Association, Inc., were: president, C. A. McGinnis, The Johns-Manville Co.; vice president, Charles Becker, R. D. Wood Co.; and treasurer, Edgar Buttenheim, *The American City Magazine.*

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NRPB abolished by Congressional action

The National Resources Planning Board was abolished last week by Congress. The abolition was very thorough; Congress not only directed the liquidation of the agency but forbade transfer of any of its functions to any other agency and directed that its files be consigned to the Archives of the United States. Liquidation of the agency is supposed to be complete by September 1.

NRPB dates back, through such predecessors as the National Resources and the Federal Employment Stabilization Board, to the Employment Stabilization Act of 1931. Originally set up to study the possibilities of extending public works in periods of depression and shrinking them in prosperity, the board's activities have widened into all sorts of economic studies. In recent years its public works jobs have been: the formulation of a six-year plan of federal works (probably to be continued by the Bureau of the Budget); encouragement of local public works planning; and preparation of rather generalized regional plans for river basins and various sections of the country.

• • •

Permit inventory sales of construction machines

Prohibition of the sale of certain types of construction machinery and equipment in inventories has been removed by the War Production Board in an amended issue of Limitation Order L-192.

The original order prohibited acceptance after June 1, 1942, of purchase orders for certain types of graders, levellers, scrapers and other items. The amended order eliminates the time limitation so far as it affects such items in inventories. It also adds a definition of dealer or distributor to make it clear that references in the order to dealers and distributors apply only to those located in the 48 states and the District of Columbia.

Milwaukee is lowest in per-capita debt

Through the operations of its amortization fund, Milwaukee has lowest per capita debt of all cities ing a population of 500,000 or m according to a recent survey made Rosina Mohaupt of the Detroit Bur of Governmental Research. The re shows that Milwaukee had a per ca debt of $40.19 on Jan. 1, which inclu $6,000,000 listed as its share of co relief debt and nearly $9,000,000 as share of the metropolitan sewerage d Milwaukee's amortization fund, begun 1923 to erase the city's debt, is approa ing assests of $10,000,000.

• • •

Another generator goes in at Grand Coulee

Adding more than 70,000 kw. to nation's power facilities for the war dustries of the Pacific Northwest, anot big hydro-electric generator has g into commercial production at Gr Coulee Dam. Secretary of the Inte Harold L. Ickes has announced. T generator is one of two originally c structed for Shasta Dam of the Cent Valley project in California. The t porary transfer of these units to Gr Coulee makes their power availabl year ahead of schedule.

Addition of the new generator bri the present capacity at the Grand Cou power plant to more than 400,000 kw

• • •

Flood damage to bridge not excessive in Indiana

Estimates of damage to Indiana St Highway bridges from the recent fl waters of the Wabash and White riv and their tributaries will not exc $100,000, according to S. C. Hadd chairman, State Highway Commission

Surveys show that 13 structures the state system were washed out or verely damaged during the flood, requ ing either complete replacement or tensive repairs to put them in satisfact condition for traffic.

With one exception, the damag bridges had been constructed as cou bridges prior to the time the road came a part of the state highway syste One 20-ft. culvert built by the highw commission several years ago, was und mined by the high waters and will quire considerable work. Plans for repair and replacement of these str tures are now under way, said Hadden, but until the work can be co pleted or a temporary bridge placed operation, traffic is being detoured o nearby state highways and county roa

Construction Communiques

his installment of special news from the war fronts includes an account of dedication of the second American-built airdrome in England witnessed By R editor Waldo G. Bowman last week, and a story on the U. S. Army Engi- r oil pipeline project in the Yukon Territory. Harold W. Richardson, western tor of *News-Record*, is now in this area and will soon report on the work.

ukon Territory—Well on its way to pletion is a vast program for the de- pment of Canadian oil resources, in- ding the building of refineries and struction of a pipeline more than 400 es long to bring oil to the fleets of ks using the Alaskan Military High- , to planes on the Alaskan routes, and teamships in Alaskan ports.

his wartime Army project, rivaling highway itself in scope and im- tance, it is expected, will be completed year. It is known as the "Canol ject" (an abbreviation of "Canadian "). Brig. Gen. James A. O'Connor, of Northwest Service Command, is in ve charge of the whole undertaking. the first information released regard- this great project, Morley Cassidy, the North American Newspaper Al- ce, says: "With drilling actively der way and constantly increasing in ent in the area of Fort Norman 400 es northwest of Whitehorse on the ckenzie River, the project is uncov- ng an oilfield which has already sur- sed all geologists' expectations and es promise of becoming one of the st important fields on the American tinent.

"Smashing through the forests and zen ground with the same driving en- y with which he pushed the Alaska ghway through from Dawson Creek to itehorse, General O'Connor's forces e already completed the 400-mile high- y.

"Much work has already been done on pipeline itself. When completed the e will bring crude oil to a refinery ich is to be erected in the vicinity of itehorse. From here other lines will tend south along the highway, and rth as far as Fairbanks, Alaska."

The discovery of the pass through Continental Divide which would de- mine the route of the pipeline of the nol project is credited to Lieut. Wil- m Hammond of the Army Engineers, o succeeded where six previous ex- ditions had failed. He headed an ex- ndition drawn by three teams of dogs d taking three toboggans loaded with 0 pounds of provisions. They started t through the snow in 60-degrees- low-zero weather and in a little over month arrived at Fort Norman having oved that they had found the best ute for the pipeline.

Harold W. Richardson, western edi- r of *Engineering News-Record*, who ote the series of articles on the Alaskan military highway last fall, is now on his way back to the Canadian Northwest for a second tour of inspection and will cover the engineering and construction details of the Canol project.

Alaska and Australia—A group of U. S. army topographical engineers was assigned early last year to work at locating part of the Alcan highway between Canada and Alaska. It was ten degrees below zero and there was a foot of snow on the ground when they arrived at Dawson Creek, B. C., the latter part of the year. Later the temperature dropped and some of the men did plane surveying at 30 degrees below zero. Their Thanksgiving turkey froze between the mess line and their tents and had to be thawed out over the tent stoves. Tractors were driven over ice 18 in. thick.

This detachment arrived back in the United States on New Year's eve, and within a week were on their way to Australia, where January, February and March are summer months.

ENGINEERING ABROAD

This is the first report from Waldo G. Bowman, editor of *Engineering News-Record*, who left for England at the end of May to visit engineering operations in the European theater of operations.

By Waldo G. Bowman

London, June 19.
(By Radiogram):

Only three weeks after the first American-built airdrome in England was dedicated and named Andrews Field in honor of the late Lieut. Gen. Frank M. Andrews, European theater commander who lost his life in a plane accident in Iceland, the second such field was the scene of dedicatory exercises on June 17.

Stressing the rising tempo of construction operations by engineer general service regiments and engineer aviation battalions Brig. Gen. Cecil R. Moore, chief engineer, European Theater of Operations, paid tribute to the units responsible for this latest achievement. As the troops—only yesterday construction men in coveralls but now every inch soldiers—stood in formation on one of the newly built runways General Moore said to them:

"In building this airport you have worked in good weather, you have also worked in bad weather; you have worked on Sundays and on holidays, in the cold, in the rain, in the mud and in the dark hours of the short winter days. Nothing stopped your progress. You have done a good job. You are supplying the tools which make it possible for our bombers to carry out their duty. I wish to thank each and every one of you."

Signalizing the completion, a formation of flying fortresses circled the field and landed, the engineer troops passed in review before General Moore and a large group of engineer officers (all of whom are familiar to American engineers but whose identity may not be revealed for security reasons). Another American bomber field was open for business and another unit of engineers had gained valuable experience that will prove useful when similar fields are required.

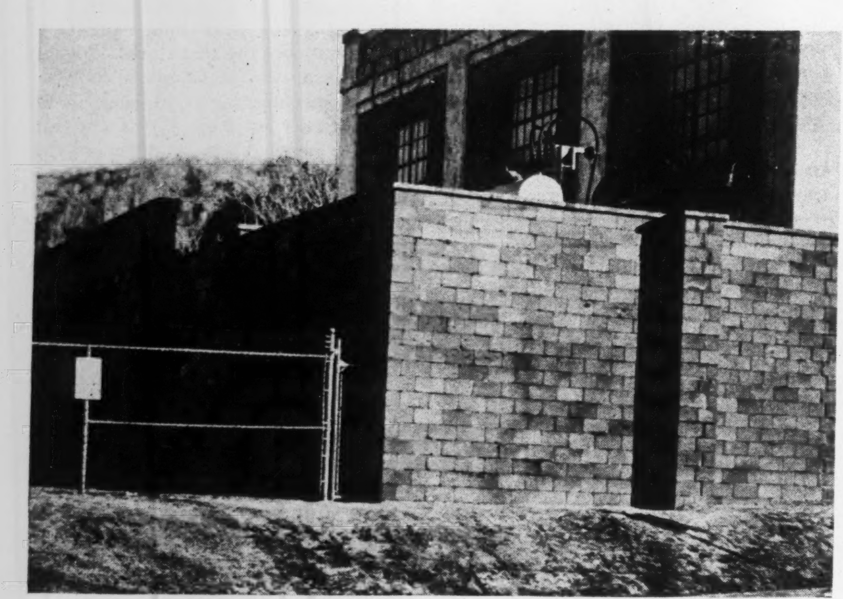
The heavy bomber fields that we are building in Britain follow a standard pattern to the extent that varying topography will permit. The one dedicated on June 17, covering some 600 acres of what was English farm and forest land, includes three concrete runways, one of 6,107 ft. and two of 4,200 ft. totaling over 300,000 sq. yd. of surface. In addition, the field is encircled by over ten miles of concrete taxi-track, off of which dozens of hard-standings of a new type for plane dispersal are located.

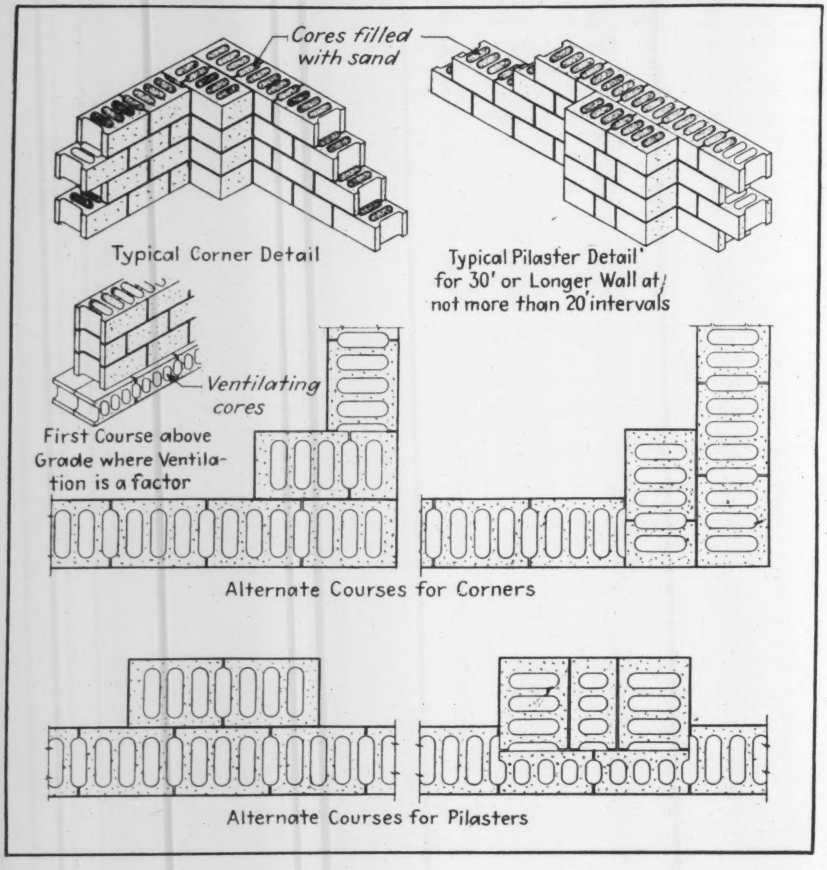
A half dozen or more living sites of steel Nissen huts are accommodated in various places on the field, and there are modern water supply and sewage treatment facilities. A total of one million five hundred thousand man-hours of work was expended in the construction, which required just under eleven months and which would be classed as about a five-million-dollar job in the United States if carried out.

To accomplish this work, the troops were aided by an array of American construction equipment of which any contractor might be proud. All materials were supplied by the British Air Ministry, which also installed the electrical and heating systems and erected the elevated water tank.

Concrete Blocks for Sabotage Protection

George W. Hoffmann
Coral Gables, Fla.




Cores filled with sand
Typical Corner Detail
Typical Pilaster Detail for 30' or Longer Wall at not more than 20' intervals
Ventilating cores
First Course above Grade where Ventilation is a factor
Alternate Courses for Corners
Alternate Courses for Pilasters

Recent tests have shown con
blocks to be an ideal material for
and enclosures for protection of t
formers, switch yards and other en
centers against sabotage by rifle
and bomb shrapnel. The block
take the place of more expensive
less durable sand bag barriers. Bag
critical jute and sisal fibre mater
have a limited life under exposur
weather. Concrete blocks, in cont
are made of materials readily avail
everywhere, are permanent and are m
architecturally attractive than sand b

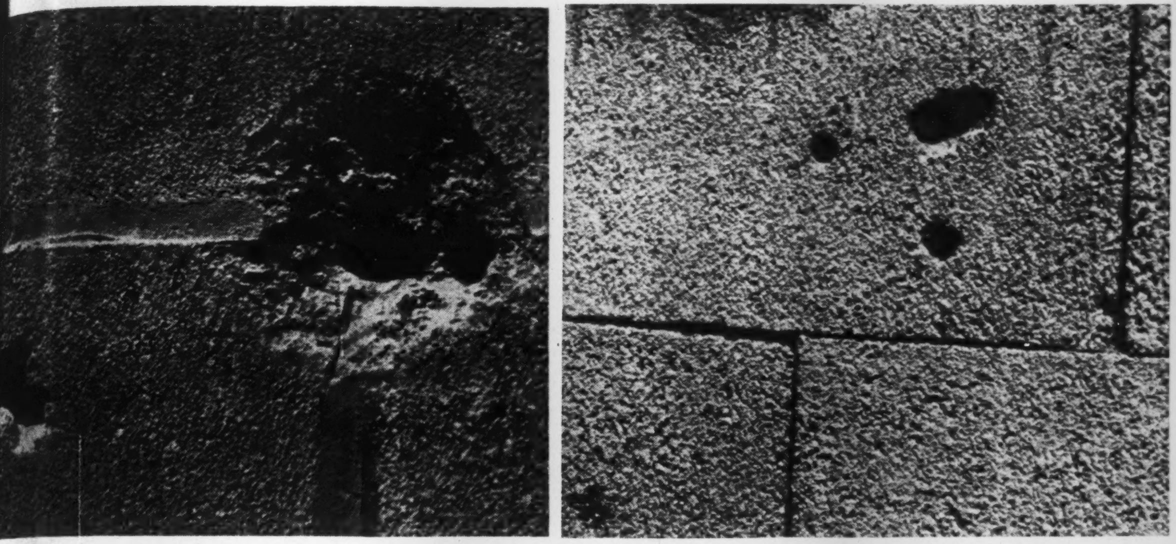
The tests have been conducted by
Besser Mfg. Co., Alpena, Mich., ma
of concrete block machinery, by
Celocrete division of the Celotex Co
makers of light-weight aggregate,
groups of independent concrete bl
manufacturers, by the Portland Cem
Association, and by the Army and F
eral Bureau of Investigation.

Most of the tests were conducted
small arms ranging from pistols to hi
powered rifles and by machine gun
Standard 8x8x16-in. blocks of sand
gravel aggregates were found to be
fective in stopping rifle fire, especi
when the hollow spaces in the blo
were filled with sand. The high
power projectiles penetrated only 2
into the 8-in. walls, the others fell to
ground after the impact. Blocks ma
of light-weight aggregate proved e
more satisfactory, showing less tende
to shatter and to spall around the bu
holes.

Results of the tests and suggested
signs of walls are shown in the acc
panying illustrations. The author or
of the firms mentioned above will
glad to furnish help or additional in
mation to those responsible for sabot
protection.

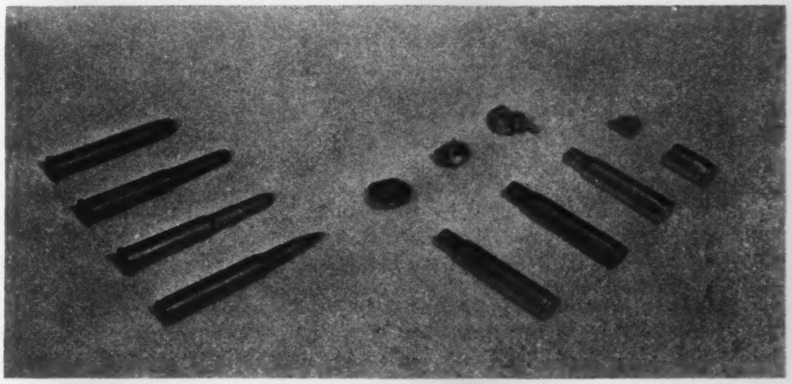
The concrete block wall, shown at top lef which encloses a transformer station, was d signed for protection against sabotage b rifle fire. The walls are 8 in. thick and 13 f 8 in high.

Designs of concrete block walls, at low left, are suggested by the Portland Ceme Association for sabotage protection.



ct of high-power rifle fire against a wall of concrete blocks made of standard aggregates is shown at left. None of the projectiles penetrated
ugh the sand-filled blocks. Results of similar rifle fire against blocks made of light-weight aggregate is shown at right.

ability of concrete block wall construc-
n to resist high-power rifle fire is demon-
ated in the illustration at right. Here the
llet penetrated to a depth of only 2 in. into
8 in. thick wall. This was the highest
wer projectile fired during the test. All
er bullets fell to the ground after impact
h the concrete and sand-filled wall units.



pe of ammunition used in test of rifle fire
ainst a concrete block wall and effect
on the bullets is shown in the illustration at
ght. The shots were fired from a distance
25 to 50 ft. away. The ammunition used
nged from 38-55 to .45 caliber pistol, rifle
d machine gun.

Attention centered on postwar work at Citizens Conference on Planning

Diverse group recognizes that postwar prosperity must depend on private enterprise and not on public expenditures.

The Citizens Conference on Planning held at Omaha, Neb., June 14-16, under sponsorship of the American Planning & Civic Association of Washington, D. C., was representative of all interests concerned with a post-war economy and the planning which it requires. Speakers included economists, industrialists and planners, and subjects covered included federal power, reclamation and flood control, national parks, forestry, soil conservation, transportation, air, highway and motor-vehicle terminals, housing and its financing, tax-forfeited land in urban centers, redevelopment of urban areas, and regional and state planning for postwar construction. Probably no conference on planning has ever been held where as many diverse interests expressed their views and endeavored to correlate them in concrete postwar proposals divided between private enterprise and public works. The majority of the speakers were keenly alive to the fact that public works financed from public treasuries would not do the job, but that production by the people themselves of the things they need and use day by day under their own direction would do it.

Greater production needed

The conference was opened by Arthur Upgren, Vice President and Economist, 9th District Federal Reserve Bank, Minneapolis. He said that in 1929 we produced one hundred billion dollars worth of services and goods and employment was generally satisfactory; in 1940 we also produced one hundred billion dollars worth, but there were eight million unemployed because of increased productivity of each worker. Consequently he said, our total production must be sustained at a still higher level to employ the labor force of fifty-seven million that we will have after the war. These are largely estimates of the National Committee for Economic Development.

Great prosperity ahead

John Airey, chairman of the committee on postwar problems of the National Association of Manufacturers, stated that the reconversion period would be followed by a great prosperity with thirty to fifty billion dollars of cash or equivalent in the hand of tens of millions of people wanting to buy things. He holds that there will be no justification at any time in government activity in creating work, at least in building pyramids, figuratively speaking. He objected to the "changes of climate in which private enterprise now flourishes." It deters private investors and indirectly prevents more new employment than it directly creates. Plans and designs for postwar public works should be made now but they should be held in abeyance for several years after the war and timed to smooth out our overall economic activities.

Walter H. Simonson, Public Roads Administration, said that road and highway building would play an important part in postwar conversion of industry, especially modernization of highway systems in and around cities.

Housing problems

Postwar reconstruction received its share of discussion. Philip Klutznick, National Housing Agency, Washington, stated that war-time housing is an emergency product and would probably be destroyed after the war as a war-time expense. After the war the United States must produce a minimum of one hundred billion dollars worth of goods, among which will be adequate housing. There are estimates that one to two million dwelling units will be needed after the war.

No matter how gifted a federal employee might be, Mr. Klutznick said, a short time in a community supplemented by statistics and studies cannot equip him to determine a long time housing need for a local community. It is incontrovertible that the people of a community know best its needs.

Hugh Potter, president, Urban Land Institute, Houston, Texas, denounced urban redevelopment plans that freeze taxes at the existing level to encourage slum clearance; he is in favor of the federal government providing money to buy up blighted areas encumbered with mortgages and contracts and reselling or leasing the land at a deflated level to private developers. The people must pay the difference between existing values in blighted areas and their deflater values for more desirable use, and they could only do this through federal aid.

Planning board favored

Recommendations were made by resolution that there be maintained a national planning board. Also, that this national planning board be implemented to assist state planning boards and that state boards be geared to assist local planning boards.

Gill Robb Wilson, president of the National Aeronautic Association, gave a forthright talk on postwar air opportunities of cities. He said that fr planes and passenger planes would p ably not use the same ports, also air freighters would not take the p of trucks or freight cars.

Robert Kingery, chairman, Illi State Planning Board, said Illinoi acquiring sites for super-airports— less than 1000 acres in each. A bill fore the legislature will provide s aid for airports just as the state, years ago, took over the responsibi for a state highway system.

Municipal "lend-lease" brings aid to Detroit

Through a municipal "lend-lease" agreement the Federal Work Agency has arranged for Philadelphia to lend to Detroit equipment needed to avert a possible water famine in sections of that important war industrial center. Maj. Gen. Philip B. Fleming, Federal Works Administrator, announced on June 11 that an agreement has been made between FWA and the city of Philadelphia by which four 40-mgd. water pumps and four motor generators will be loaned to Detroit until Oct. 31.

"Here is an example of municipal lend-lease where one great American city helps another in the all-out war effort," said General Fleming. "Detroit needed the equipment. Philadelphia had it. FWA provided the facilities, with WPB cooperation, that made the transfer possible."

The Federal Works Agency will allot $6,000 to lease the equipment from Philadelphia until Oct. 31. It is expected that in the interim permanent pumps will be provided for Detroit.

Public works program approved for Milwaukee

Scheduling of work for the first year o Milwaukee's long-term improvement program was approved recently by the cit council. Carrying appropriations o $3,540,906, the complete resources of th permanent improvement fund, the program provides for street and sewer improvements, playground extensions, replacement of equipment, school construction, traffic control and electrical installations, and lake front developments

Although many of the projects approved under this program will have t wait until after the war, the advantag of scheduling them now is that it definitely earmarks funds which will b available when peace comes.

ouston water supply o be operated by FWA

ntil jurisdiction is determined by the e of Texas, the Federal Works ncy will operate the project for drawoff water from the San Jacinto river NR Nov. 12, 1942, p. 673) to supply ship canal industrial area at Houston, ., it has been announced by Assistant ministrator Baird Snyder.

The project, under construction, is to ng 60,000,000 gallons of water daily m the watershed to the industrial a. The jurisdictional question is nding within the state. Suggestions operation by various local groups ve been objected to by many Texans, communications to the authorities.

Mr. Snyder said: "Although it is not r policy to operate utilities built with deral aid from this agency, in this stance the agency will operate this oject until there shall have been a termination by the proper state govmental agency what local interest has, nder the laws of the State of Texas, roper jurisdiction over this portion of e supply of the watershed. It would em to be in the local interest to have ch a determination made as soon as ossible so that the operation of this roject may be turned over to the local urisdiction."

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WPB seeks to release idle contractors' plant

Methods of attracting idle machines nto the normal channels of distribution or resale were discussed recently by the Used Construction Machinery Industry Advisory Committee with WPB and other government officials in Washington.

It was pointed out by members of the committee that many contractors who have worked on army camp construction are holding large stocks of equipment in idleness in expectation of further construction. Many contractors fail to realize that the need for new posts and stations is in fact non-existent and that the holding of construction equipment in idleness in expectation of future military contracts may be a definite obstruction to other vital wartime projects.

WPB officials reported that their regional offices constantly receive requests for machines for a wide variety of civilian uses. The committee's immediate action was to formulate recommendations to be made to various government agencies designed to stimulate the flow of idle equipment into channels leading to immediate use. The critical repair parts situation and the problems of reconditioning and general repair, they stated, particularly affect the putting of used equipment to work.

The certification "in writing" required under Limitation Order L-192 before a purchaser can obtain construction machinery repair parts to meet an actual or impending breakdown may be made in the form of a telegraphic certification, M. B. Garber, acting director of WPB Construction Machinery Division, has stated. It should contain information that the order requires. If a telegraphic certification is made where the purchaser is using a preference rating assigned by CMD regulation 5 or 5A or any preference rating order in the "P" or "U" series, that also requires certification; the purchaser must further note on his telegraphic certification the source of his rating and add the statement "rating certified." The purchaser of the repair parts also must keep a copy of the telegraphic certification in his record signed by him.

More than 7,000 items of used construction machinery with an estimated value of $60,000,000 have been supplied for construction jobs during the past six months through the inventories of used construction equipment set up in the War Production Board's twelve regional offices, the Construction Machinery Division announced on May 18. The utilization of this machinery has saved new equipment representing some 120,000 tons of raw materials.

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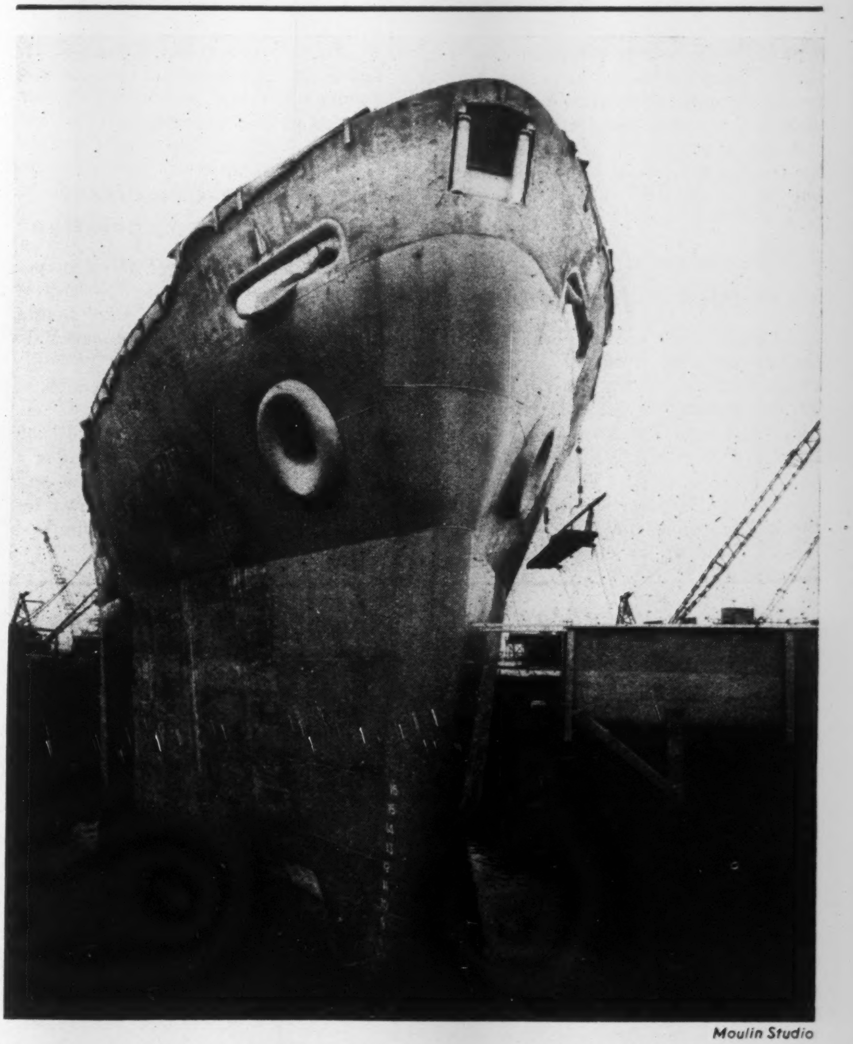
Plans have been announced by Dr. Gustave Baz, Minister of Public Welfare, for a tropical diseases hospital at Acapulco to service the entire Mexican Pacific coast.



Moulin Studio

Concrete barge "Belair No. 1" launched at San Francisco

The first reinforced concrete ship-shaped barge to be launched at the Delair shipyard of Barrett & Hilp on San Francisco Bay, under contract for the United States Maritime Commission, was christened and floated in its graving dock at high tide on June 16. This is the first of 26 of these barges that are to be launched at this yard. (For description of the design and construction methods used on these concrete barges, see ENR, May 13, p. 712.)

Donald Kennedy heads postwar committee

G. Donald Kennedy, vice president of the Automotive Safety Foundation, Washington, D. C., former head of the Michigan Highway Department, has been named chairman of the committee on postwar construction of the American Society of Civil Engineers. Other members of the cimmittee are A. J. Ackerman, director of engineering, Dravo Corporation, Pittsburgh; Dean G. Edwards, consulting engineer to the borough president of Manhattan, Frederick H. Fowler, past president of the Society, Gustav J. Requardt, consulting engineer, Baltimore, and Frank T. Sheets, president, Portland Cement Association.

Appointment of the committee was authorized by the board of direction of the society at its spring meeting at the request of the society's construction division. The committee is to provide leadership for nationwide acceptance of the need for advance preparation of plans and specifications for private and public construction work to be put under way in the postwar period.

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Milwaukee dredging job awarded to lone bidder

Although only one bid was received for the dredging of 60,000 cu.yd. of silt from three rivers at Milwaukee, the harbor commission, May 18, awarded a contract to the Fitzsimons and Connell Dredge & Dock Co., Chicago, at its bid of 56½c. per cu.yd. The contract was awarded to the lone bidder only after the city attorney ruled the commission legally could do so since it had sought diligently for bidders and no others had offered proposals. Bids had been asked from six companies. This contract involves dredging the three rivers at spots where the beds have silted up to a depth of but 15 feet. Heavily-loaded coal boats require a draft of from 19 to 20 ft. and the new work will provide a channel depth of 22 ft.

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One thousandth meeting of Sacramento engineers

The Sacramento Section of the American Society of Civil Engineers met June 15 for its one-thousandth successive regular meeting.

The society held its first meeting April 19, 1922, of the 35 charter members, 23 still belong to the organization, 14 have served as president and 10 have died. There now are over 200 members. The A.S.C.E. has 64 local sections, but Sacramento's is said to be the only one that holds weekly meetings.

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Frederic Bass to direct public works association

Frederic Bass, professor of municipal and sanitary engineering at the University of Minnesota, will become acting executive director of the American Public Works Association on July 1.

Prof. Bass, who has been engaged as a consultant on many municipal engineering projects, retired from his college position a short time ago, after a long period of service. In his new post with the A.P.W.A. he will take over the duties of Norman B. Hebden, who was granted a leave of absence.

Patching rate increases on Indiana highways

At least 50 percent more patching w required this spring on Indiana's st highway surfaces than for many yea reports S. C. Hadden, chairman of t Indiana State Highway Commission. effort has been spared in repairing hig ways to eliminate possible damage tires and vehicles, although many repai have been temporary, especially on hig ways carrying heavy traffic, with pe manent repairs to be made later.

Maintenance work has been carri on during the winter and spring und the double handicap of a shortage of e perienced workmen and without the add tion of new trucks or other equipmen Keeping equipment in good operatin condition to meet the increased highwa maintenance, is a constant problem wit competent mechanics at a premium. Th combination of weather, traffic, restri tions on materials and equipment, an shortage of experienced personnel make highway maintenance a real problem said Commissioner Hadden. Excessiv deterioration of highways this year ha resulted from heavily-loaded trucks an increased traffic near war centers.

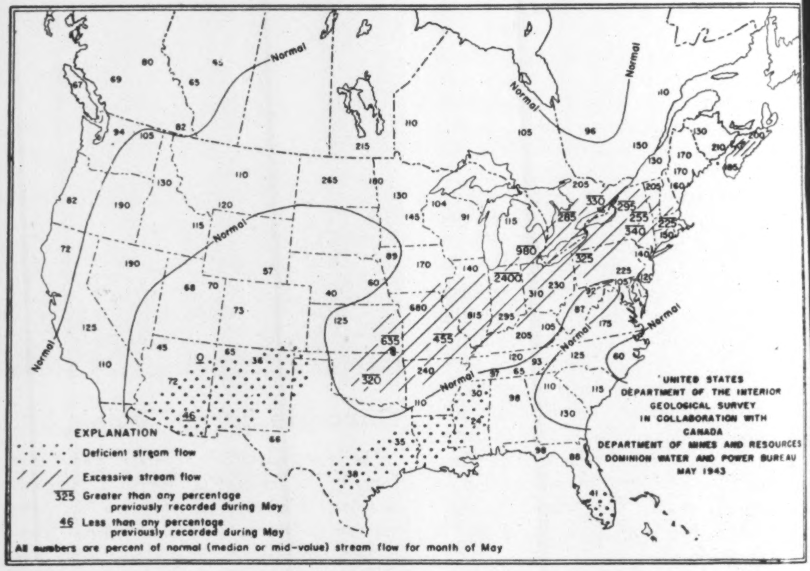
More than a year ago the commissio realized that maintenance of Indiana' $400,000,000 system of highways an bridges was of primary importance dur ing the war period, and this responsi bility is being met to the full extent o the commission's resources of money men and machines. At the same tim plans are being developed for an exten sive highway construction and moderniza tion program to be inaugurated after th war when present restrictions are relaxed and traffic increases.

May was a month of disastrous floods in seven states

Extraordinary floods, extending over seven states from Oklahoma northeastward to Michigan and causing damage in extensive agricultural and industrial areas, were by far the most outstanding hydrologic feature of May. By reason of flood warnings and forecasts, direct loss of life was small. Property damage is reported to have run into the millions, including crops lost due to overflow.

Less spectacular, but of special significance in connection with the nation's food supply in wartime, is the continuation of the drought in the Southwest, and, in a lesser degree, the area of deficient streamflow extending from central Texas across Louisiana and Mississippi. In Arizona and New Mexico, especially, the lack of water is creating acute problems of water supply for livestock.

Vagaries of climatic phenomena were illustrated by the combination of conditions which produced severe floods and droughts in areas so nearly contiguous.


Normal
EXPLANATION
Deficient stream flow
Excessive stream flow
325 Greater than any percentage previously recorded during May
46 Less than any percentage previously recorded during May
All numbers are percent of normal (median or mid-value) stream flow for month of May
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
IN COLLABORATION WITH
CANADA
DEPARTMENT OF MINES AND RESOURCES
DOMINION WATER AND POWER BUREAU
MAY 1943

Activity on the Postwar Front

g the specific fields being studied to determine their role in contributing l postwar employment are housing, rebuilding of American cities, and works activities. Urban rehabilitation is being studied by the American ate of Architects, the American Planning and Civic Association and the rence Committee on Urban Problems of the Chamber of Commerce of nited States. The National Resources Planning Board has reported on a rehensive public works program as a buffer against postwar depression, and oard of Governors of the Federal Reserve System is exploring regional rces as an element of "positive postwar progress looking toward full employ- and full production."

Associated General Contractors merica, Inc., and the Producers il are working on the construction ry's place in the "transition from rd-breaking war construction pro- and virtual suspension of civilian uction to an expected active and ding construction program to main- ull employment in the postwar "

* * *

York State—The new York State ation of **Real Estate Boards** has a r planning and housing commit- develop a sound program for the financing, construction and own- of real property.

* * *

ore, Md.—J. A. Clarke, building er, is studying reports on workers' g in the Soviet Union, England her countries, and is planning now postwar period.

* * *

nati, Ohio—R. C. Cosgrove, vice ent and general manager of the y Corporation, says: "If the in- of the war lessens gradually, as expect, we should be able to go into civilian production by easy and thus hold up our personnel ctorily. Then we should go into y accentuated yearly changes and vements in products, but don't ex- great changes too soon after the ended."

* * *

of Washington—A 6-year program blic improvements is proposed— 0,000 for public buildings, $50,- 0 for highways and almost $2,- 0 for experimental stations, fish ries and game farms.

* * *

a — The National Construction il is preparing a comprehensive or the employment of the building ries in urban and rural housing. l study local requirements, and a trans-Canada tour to promote le construction projects.

President D. C. Coleman of the Canadian Pacific Railway said that his company will be prepared to participate in plans and policies with which private enterprise must meet postwar conditions to supplement publicity sponsored works. The C.P.R. has appointed a committee of its senior officers, headed by John E. Armstrong, chief engineer, to prepare a program of rehabilitation and improvement of the company's properties to be carried out as may be required in order to make use of surplus labor for undertakings that will increase its earning power and service to the nation.

* * *

Texas—A state committee on postwar reconstruction and reorganization has been formed to test out Texas opinion on various proposals and to stimulate thoughtful discussion of postwar problems among the citizens of the state.

The Texas Highway Department is making plans for after-the-war road work to cost $300,000,000, as recommended by its twenty-five district engineers. These projects are being studied to decide priority and are being moved through the preliminary stages in order that the work may be undertaken with the least possible delay when peace comes.

* * *

St. Louis, Mo.—A plan by which holders of war bonds would be permitted to use them to finance the construction of new homes after the war has been discussed by the Builders Guild. The prospective home owner would enter into a 3-way contract with financing agencies and builders and make monthly payments on his home through war bonds or by payments in cash. The plan, it is hoped, will promote $35,000,000 worth of home building in the St. Louis area.

* * *

Pittsburgh, Pa.—"Study of postwar probabilities has convinced me," states Willard F. Rockwell, president of the Pittsburgh Equitable Meter Co., "that waterworks and sewage disposal construction is going into the greatest expansion it has ever known. This prophecy can be safely made whether or not there is a general boom following the war."

Mr. Rockwell's comment was made as a result of an inquiry by *Engineering News-Record* concerning postwar potentialities. He continued, "Should there be a depression similar to the period immediately following World War I, government financing of public works projects will undoubtedly be undertaken to provide a cushion and to take up the slack, while providing employment for our demobilized forces. Because this country will continue to grow, there is no safer investment during dull times than the building and improving of waterworks and sewage disposal facilities. Of necessity, many properties have been allowed to deteriorate during the present emergency. It will require a tremendous backlog of equipment just to refurbish and rehabilitate existing systems without taking into consideration the extensions and new projects that have been held up."

* * *

Chicago, Ill.—Early preparation of preliminary plans for postwar construction is being urged on all municipalities within 50 miles of Chicago by the Chicago Regional Planning Association, according to Robert Kingery, general manager. Although plans have been developed already for improvements in the Chicago area estimated to cost $290,000,000, Mr. Kingery reports that officials in several cities, villages and park districts in that area are waiting for assurance of federal grant aid. However, communities having engineering and architectural plans completed, land purchased and legal and financial arrangements made, undoubtedly will be among the first to receive financial aid when it is available.

* * *

Philadelphia, Pa.—A new 9-man commission on city planning to chart Philadelphia's growth and to draft a financial plan of capital improvements has been appointed by Mayor Bernard Samuel. The commission was directed to proceed with a comprehensive master plan for the city, coordinating physical improvements with a financial plan to insure their execution, with a particular view to: (1) measures to halt decline in real estate values, (2) attention to mass transportation facilities as they affect the city's future growth, (3) street planning on the assumption of heavy postwar increases in vehicular traffic, (4) relation of recreational and playground facilities to the housing problem, particularly in blighted areas, and (5) preparation of a plan for a new sewage disposal system. The 1943 Philadelphia budget provides $40,000 for a technical staff and other expenses of the new planning commission.

JOBS OF THE WEEK

PAVEMENT, Colorado.
Northwestern Engineering Co., Rapid City, S. D., has been awarded contract for constructing pavement center, Denver County, by U. S. Engineers, Denver, Colo. Estimated cost will be from $500,000 to $1,000,000.

AIR FORCE INSTALLATION, Idaho.
U. S. Engineers, Portland, Ore., awarded contract to J. A. Terteling & Sons, Boise, Idaho, for constructing Army Air Force installation in Elmore County. Cost of project will exceed $1,000,000.

AIR FORCES INSTALLATION, Kentucky.
Western Contracting Corp., Sioux City, Ia., has been awarded contract for Army Air forces installation in Jefferson Co. by U. S. Engineers, Louisville, Ky. Work will exceed $1,000,000 in cost.

ENGINE TEST BUILDING, Florida.
Fred Howland, Inc., Miami, Fla., has been awarded contract for 24-cell engine test building in Dade County by U. S. Engineers, Jacksonville. Cost will be less than $1,000,000.

IMPROVEMENTS, Texas.
Texas Bitulithic Co., Dallas, Tex., will construct improvements in Victoria County to cost between $500,000 and $1,000,000. U. S. Engineers, Galveston, awarded the contract.

HOUSING Edmonton, Alta.
Bennett & White Construction Co., Edmonton, Alta., has been awarded contract for two hundred fifty houses for Wartime Housing Ltd., Toronto, Ont. Estimated cost $1,250,000. Rule, Wynn & Rule, Edmonton, are supervising architects.

DISTRICT PALACE BUILDING, Mexico City, Mexico.
Department of Federal Public Works and Communications, Mexico City, constructing federal district palace by force account and sub contracts. Estimated cost is $1,200,000.

IMPROVEMENTS, Oklahoma.
U. S. Engineers, Tulsa, Okla., awarded contract for construction of improvements, Oklahoma County, to Charles M. Dunning Contracting Co., Oklahoma City. Cost will exceed $2,000,000.

BUILDING, Van Nuys, Calif.
J. and B. Construction Co., Los Angeles, Calif., will construct buildings and utilities at Army General hospital. Project will comprise one hundred buildings, including housing for officers, nurses and administrative personnel. Total estimated cost is $4,000,000. U. S. Engineers, Los Angeles, Calif., awarded the contract.

BUILDINGS, Brady, Tex.
U. S. Engineer, Fort Sam Houston, awarded contract for housing to Charles Oehler, Galveston at $1,680,000.

ALUMINUM PLANT, South Carolina.
Daniels Construction Co., Greenville, has been awarded contract for an aluminum plant, by the Defense Plant Corp. Estimated cost is $2,750,000.

RAILROAD, North Carolina.
Atlantic & East Carolina Railway Co., New Bern, awarded contract to T. A. Loving & Co., Goldsboro, N. C., for improving State-controlled railroad, ballasting roadbed, new cross ties, drainage, strengthening bridges, and heavier rails between Kinston and Morehead City. Estimated cost is $600,000. Navy Dept. will supervise construction and help finance.

HOUSING, Michigan.
Brown & Mathews, Detroit, Mich., will construct housing project at $804,000. Public Housing Authority, Detroit, awarded the contract. Hewlett & Luckenbach and H. Augustus O'Dell, all of Detroit, are architects.

IMPROVEMENTS, Texas.
J. W. Bateson, Dallas, Tex., was the lowest bidder when offers were opened by U. S. Engineers, Tulsa, Okla., for improvements, Dallam County. Estimated cost is $1,175,000.

IMPROVEMENTS, Pennsylvania.
U. S. Engineers, Pittsburgh, Pa., received the lowest bid for improvements, McKean County, Larkin Co., Camp Hill, Pa., was low on macadam surfacing, 90 days, at $524,602; F. B. Kessler, Northumberland, Pa., macadam paving 150 days at $577,167; concrete at 150 days $538,856; and M. Bennett & Sons, Indiana, concrete at 90 days, $592,388. Gannett, Eastman & Fleming, Inc., Transfer, Pa., are engineers and architects.

Note—Additional bidding and contract news on many projects large and small appear in the Construction News section beginning on page 16.

Miss Ina Butler 25 yea in Michigan road offic

Back in 1918, when engineers were because of World War I, Miss Ina Butle out of the engineering school at Mi State College, went to work as a drafts for the Michigan State Highway Depar On May 27, 1943, with engineers again for a similar reason, Miss Butler, still job, completed 25 years of continuous e ment in the road design division of the way department. Above, Miss Butler is discussing a design problem with Ha Ward, chief deputy commissioner, wh stopped in the drafting room of the L office to congratulate her on her 25th a sary.

Pennsylvania turnpike earns most from truck

Twenty-one million pounds of f per day, 85 percent of it essentia materials, is being trucked ove Pennsylvania Turnpike, according survey made by Mack Trucks, Inc. ued at more than a million and a dollars, this truck freight is prod over 70 percent of the turnpike's p daily revenue, despite the fact th military convoys move toll-free.

In October, 1940, passenger ca counted for 89 percent of the road's fic, allowing trucks 10 percent and the remaining one percent. From ber 1, 1940, to the same date in trucks paid 30 percent of the turn revenue; passenger cars brought percent; buses, 2 percent; and th maining 7 percent was made u miscellaneous revenue including co sion funds.

By October of 1942, the truck re over the 160-mile turnpike had mo to 52 percent, with passenger cars ping to 40 percent. Then by the quarter of this year, truck reven 72 percent and the passenger car c bution faded to 22 percent.

OBITUARY

rge Cobb, 54, Chief Engineer of nore, Md., since October, 1939, died 17 as the result of an automobile nt. As Chief Engineer, Mr. Cobb member of the Board of Estimates, licy making body of the municipal- e also was head of the Department blic Works and ex-officio member City Plan Commission.

S. Montgomery, former supervisor Eastern Division of the North Car- Highway and Public Works Com- on, died June 9 at Princess Anne, Montgomery entered the contracting ess in Virginia after leaving the Carolina Highway post.

rence E. Miller, 54, for 24 years a engineer for the Belzoni Drainage ict, died in Memphis, Tenn. on June e was a first lieutenant in the Army neers Corps in the first world war.

eph McLean, vice president of man-Harris Co., Inc., building con- ors, died in Newark, N. J., on June

lph G. Gaither, 51, Silver Springs, died recently. He was engaged in neering activities for the United s Government in the Panama Canal

o F. Collins, 35, a highway contrac- t Bismarck, N. D., died there recent- e was vice president of William Col- & Sons, Inc., road contractors at o. N. D. and Moorhead, Minn. He also vice president of the North ta Highway Contractors Association.

Stanley Kent, senior vice-president e Boston Society of Civil Engineers, chief engineer of the Locks & Canals ., Lowell, Mass., since the retire- t of Arthur T. Safford a few years died at Lowell on May 16. He was at Meriden, Conn., and was a gradu- of the Harvard Engineering School, re he was an assistant insurveying a short period. Later he was con- ed with the hydraulic division of Stone & Webster Engineering Corp., on, and with J. A. Loyster at enovia, N. Y., on design work. For years he was an assistant on the enovia, N. Y., on design work. Mr. t served in the U. S. Navy in ld War I, and joined the Locks & als company in 1919 as assistant en- eer.

Large highway contracts awarded in Indiana

Thirteen contracts for construction work on the Indiana State Highway system, totalling $1,018,000, were awarded by the State Highway Commission last month. This was the largest number of contracts awarded by the Commission during the last six months and represents both the improvement of roads serving wartime needs and necessary upkeep on other highways to prevent deterioration. Construction or repairs of five bridges was included in the contracts. Other work included surface treatment of present highways, surfacing on some relocated sections, improvements of access routes in Jeffersonville and Indianapolis, and paving a relocated section of Route 31 west of Edinburg.

Alaska Military Highway is new name for "Alcan"

Brig. Gen. James A. O'Connor, of the United States Army's Northwest Service Command, announced June 16 that the 1,600-mile lifeline to the north is now the "Alaska Military Highway." "We called it Alcan to include some mention of Canada," he said. "Yet Canadians themselves took the lead in urging us to name the road the Alaska Highway."

◆

Hibbing, Minn.—This open-pit iron mining center and reputed "richest village in the world," through its village council, has set aside $100,000 for postwar projects. It is planned that this work will cushion the anticipated drop in mine employment following the war.

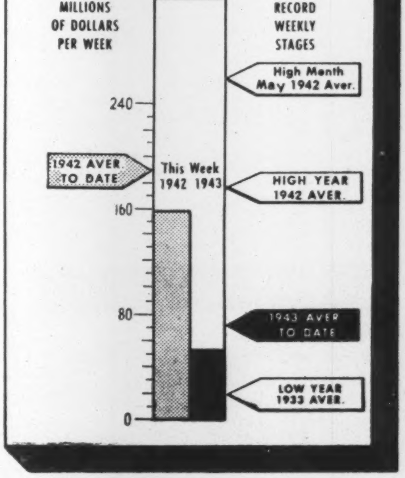
CONTRACTS AND CAPITAL

Civil engineering construction volume in continental U. S. totals $53,742,000 for the week. This volume, not including the construction by military combat engineers, American contracts outside the country, and shipbuilding, is 22 percent higher than in the preceding week, but is 66 percent lower than in the corresponding 1942 week. Public construction gains 33 percent over a week ago, but is down 67 percent compared with a year ago. Private construction is 49 and 58 percent lower, respectively, than last week and last year.

The current week's construction brings 1943 volume to $1,766,252,000, an average of $70,650,000 for each of the 25 weeks. On the weekly average basis, 1943 volume is 63 percent below the $4,905,294,000 reported for the 25-week period in 1942. Private construction, $222,484,000, is down 32 percent, and public construction, $1,543,768,000, is 65 percent lower than a year ago when adjusted for the difference in the number of weeks.

In the classified construction groups, gains over a week ago are in bridges, public buildings, streets and roads, and unclassified construction. All classes of work are lower than a year ago.

New capital for construction purposes for the week totals $729,000, and is made up entirely of state and municipal bond sales. The new construction financing total for the 25 weeks of 1943, $497,066,000, compares with $6,886,294,000 for the 26-week period in 1942.



CONTRACTS

Continental U. S. Only
(Thousands of dollars)

	Week Ending June 25 1942	Week Ending June 17 1943	Week Ending June 24 1943
Federal	$139,437	$34,313	$45,986
State & Municipal	11,682	3,671	4,544
Total public...	$151,119	$37,984	$50,530
Total private..	7,720	6,250	3,212
TOTAL	$158,839	$44,234	$53,742

Cumulative
1943....... (25 weeks)......$1,766,252
1942....... (26 weeks)......$4,905,294

Note: Minimum size projects included are: Waterworks and waterways projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1942 26 weeks	Cumulative 1943 25 weeks
NON-FEDERAL ..	$347,339	$96,716
Corp. Securities.	149,459	3,571
State & Mun...	150,461	81,012
R.F.C. loans....	47,419	9,000
FPHA loans....	....	3,133
Federal	$6,538,955	$400,350
TOTAL CAPITAL	$6,886,294	$497,066

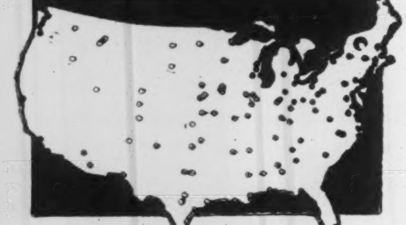
ENR INDEX NUMBERS

Index Base = 100		1913	1926
Construction Cost..	June '43..	289.94	139.37
Building Cost......	June '43..	227.71	123.09
Volume	May '43..	203	89

CONSTRUCTION REPORTS

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York
ELSIE EAVES, Manager *SCOTT McLEOD, Statistician*
(Daily service also available—Write for details)

Location of ENR Correspondents



Symbols and Abbreviations Include:

†	Federal Government
★	Project of $500,000 or over
ENR	Engineering News-Record
CD	Engineering News-Record Construction Daily
A-E-M	Architect-Engineer-Management type of contract.

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger: water supply, earthwork, waterworks, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

Classes of Construction

(Named in order of Listing)

Water Supply
Sewers, Waste Disposal
Bridges, Grade Cross'gs
Streets & Roads
Earthwork, Waterways
Unclassified
Latin America
Public Buildings
Commercial Buildings
Industrial Buildings

Stages Reported

PROPOSED: (except Streets & Roads):

BIDS ASKED (new announcements only. For full calendar, see also preceding issues of ENR);

LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

Note: To comply with censorship requirements, addresses on some reports are being generalized. Data which would reveal the purpose of the improvements and the size are withheld. The name of contractor and general area are reported.

WATER SUPPLY

PROPOSED WORK

Ala., Phenix City—Water Bd. making plans water filtration plant, main exten. $88,546. J. W. Goodwing Eng. Co., Martin Bldg., Birmingham, engr.

Calif., Santa Rosa—J. A. Tedford, city mgr., City Hall, 10 in. watermain from Bryden Lane to Cleveland Ave. $30,000; water treatment plant, filtering and softening water. $30,000.

Fla., Tampa—Plans nearing completion exten., imprv. water sys., incl. rebuilding old water dam, new 2 mg. clear water well. $200,000. Robert & Co., Bona Allen Bldg., Atlanta, Ga., engrs.

†N. C., Manteo—City, addnl. water and sewerage facilities, incl. sewage pump. sta., installing 14,650 ft. 8 and 10 in. vitr. clay sewer lines, 1,100 ft. 4 in. c.i. force main, waterproofing 200,000 gal. water reservoir, installing 420 c.i. watermains and constructing 10 ft. gravel drive 1,000 ft. long., NC-31-257. $58,611. **FWA.**

Okla., Norman—R. M. McCool, city mgr., WW and sanitary sewers. $29,846. Applied to FWA. E. H. Durkee, Norman, engr.

R. I., Woonsocket—E. E. Dupre, mayor, City Hall, water sys. storage and distr. facilities. Over $15,000.

Tex., Brady—WW sys. exten., ibprvs., incl. new main, supply well, etc. Over $25,000.

Tex., Temple—A. E. Taylor, city mgr., waterworks imprvs. $25,000. Applied for FWA funds. N. E. Trostle, Temple, engr.

†Utah—U. S. Eng., 32 Exchange Pl., Salt Lake City, pipeline for water, Tooele Co. Under $500,000.

Wis., Omro—Village, J. Hinderman, clk., 1 story, 20x20 ft. pump. house, 70,000 gal. concrete reservoir, 5,550 ft. 6 and 8 in. c.i. pipe. J. Donohue Eng. Co., 608 N. 8 St., Sheboygan, engr.

N. S., Halifax—Installing 200 new water meters, purchasing repair parts for existing meters. $55,000. R. M. McKinnon, City Hall, comr. works and engr.

Ont., Niagara on the Lake—Municipality, J. E. Masters, clk., watermain. $15,000.

Ont., Overbrook—Gloucester Twp., c/o C. H. Guest, clk., Billings Bridge, watermains, sewers on Glinn and Columbus Aves. $30,000. N. B. MacRostie, Blackburn Bldg., Ottawa, engr.

BIDS ASKED

Bids Asked June 28

Ont., Kingston—Kingston Pub. Utilities Comn., earth and rock excav., handling, laying 1,892 ft. 24 in. c.i. watermain and **1,503** ft. 27 in. rein.-con. storm sewer. **Plans** deposit $10. Gore & Storrie, 130 Bay St., Toronto, engrs.

Bids Asked June 29

N. Y., New York—Commissioner Water Supply, Gas & Electricity, Municipal Bldg., constructing new bldg., altering gatehouses installing venturi meters at Jerome Park Reservoir, Bronx Boro.

Bids Asked June 30

†La., Alexandria—W. G. Bowden, mayor, pumphouse, **FWA** 16-117.

CONTRACTS AWARDED

†Colorado—U. S. Eng., 1709 Jackson St., Omaha, Neb., pipeline and water supply sys., Eagle Co., to Frank T. Siplane, Lakewood. Est. under **$50,000.**

†Florida—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, water and sewage facilities, Neg-Jax-43-924, Monroe Co., to **The** Murphy Constr. Co., Cedar Ave., West **Palm** Beach, under **$50,000.** Awarded 6/10.

†Florida—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, water and sewage facilities, Neg-Jax-43-1021, Neg-OR-43-80 and Neg-Jax-43-1050, all in Orange Co., to Saine Co., Inc., 4511 French Ave., Jacksonville, Zone 7. Est. each under **$50,000.** Awarded 6/16 and 6/17.

†Florida—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, wells, Neg-Jax-43-996, Pinellas Co., to M. R. Vaughn, 6918 Orange Blossom Ave., Tampa, under **$50,000.** Awarded 6/14.

†Iowa—U. S. Eng., 1709 Jackson St., Omaha, Neb., well, pumphouse, Woodbury Co., to Layne-Western Co., World Herald Bldg., Omaha, Neb. Est. under **$50,000.**

Mass., Springfield—City, Bldgs. Dpt., general contract water shower for girls, Classical High School, to A. L. Phelps Co., 11 Andrew St.; electrical contract, to Springfield Electric Co., 51½ Taylor St. Est. **$15,000.** CD 6/7—ENR 6/10.

†Tex., Corpus Christi—City, A. C. McGaughan, mayor, water filtration plant, to Aikin & Hinman, P. O. Box 2350, **$139,793. FWA.** Myers & Noyes, 303 Furman Bldg., engrs. CD 6/1.

†Tex., Gainesville—City, R. P. Reagin, mayor, drilling, developing water supply well, Tex-41-602, to Layne-Texas Co., 3901 Elm St., Dallas, **$33,000. FWA.** Freese & Nichols, 407 Capps Bldg., Ft. Worth, engrs.

N. B., Moncton—Placing puddle clay core wall, 5 ft. deep, 8 ft. wide, exten. length of dam, raising dam 3 ft., concrete spillway, raising gatehouse 5 ft., bridge to gatehouse, rip rap on face of dam, to R. McManus, 230 Bonaccord Ave. W. A. McWilliam, City Hall, engr.

SEWERS, WASTE DISPOSAL

PROPOSED WORK

†Ia., Ankeny—City, H. M. Fredericks, clk., imprv. sewer and water sys., incl. sewer and water lines, imprv. sewage disposal plant, well and pumphouse, Docket 12-128. $26,000. **FWA.**

Wis., Green Bay—C. Centen, city, clk., West Side Storm sewer, 15,000 ft. 54 in. concrete or metal pipe, 15,000 ft. 10 and 15 in. vitr. clay or concrete pipe. F. J. Steeno, city engr.

Ont., Leamington—Mersea Twp., c/ Imerson, clk., drainage imprvs. $25,000. Armstrong, Bartlett Bldg., Windsor, eng

Ont., Long Branch (Postal Dist. Toron Sewage disposal plant addn. $30,000. Go Storrie, 1130 Bay St., Toronto, engrs.

Ont., Tecumseh—East Sandwich Twp. Ouellette, clk., drainage imprvs. C. G. strong, Bartlett Bldg., Windsor, engr.

BIDS ASKED

Bids Asked July 1

Ill., Chicago—Jas. M. Whalen, vice Sanitary Dist. of Chicago, 910 S. Mich Ave., furnishing, installing fly ash and s piping, at Stickney, Contr. 43-17(SW-M

Bids Asked July 2

†Ky., Morganfield—Federal Works Ag 20 N. Wacker Dr., Chicago, Ill., sewage t ment plant and sewer exten. $174,250. & Veatch, 4706 Bway., Kansas City, engrs.

LOW BIDDERS

†N. J., Bellmawr—Boro Clk., Boro June 17, sewage treatment plant and p station, etc., NJ 28114, from Newton Bugbee & Co., Inc., 206 E. Hanover Trenton, **$68,750. FWA.** CD 6/1—ENR

†N. J., Long Branch—City, June 14, ft. 8 and 30 in. sewers, from C. Salvato Sons, 390 High St., Orange, **$224,937.** CD 6/8—ENR 6/10.

N. Y., Kew Gardens—President Queens Queens Boro Hall, 120-55 Queens Blvd., 16, sewers, 11 Ave. from 130 to 125 St. from 125 St. to 124 St., from Capasso Co Corp., 865 Liberty Ave., Brooklyn, **$3** CD 6/9.

N. Y., St. George—President Richm Boro, Boro Hall, June 16, sanitary Overlook Terrace, etc., from Trifoglio Co Co., Inc., Van St. and Richmond Ter West Brighton, Staten Island, **$24,167.** 6/9.

Ont., St. Catherines—Grantham Twp., K. V. Brown, clk., sewers, from Keys Contractors, 732 Langlois St., Wind **$55,173.** CD 5/5—ENR 5/20.

CONTRACTS AWARDED

†Georgia—U. S. Eng., 512 Spring St. N Atlanta, incinerator bldg., Fulton Co. Wesley Constr. Co., 441 Courtland St. Atlanta, under **$50,000.**

†New Jersey—U. S. Eng., 120 Wall St., York, 5, N. Y., sewerage sys., appurtenan Middlesex Co., to La Fera-Grecco Contg. 149 Verona Ave., Newark. Est. **$50,000.**

†Tennessee—U. S. Eng., 306 U. S. Courtho Nashville, sewage disposal plant, Davi Co., to C. G. Kershaw, 2212 20 Ave. Birmingham, Ala., under **$100,000.**

†Tex., Stamford—Defense Plant Corp., Cotton Exchange Bldg., Dallas, sewage posal plant, to Dolph Constr. Co., Tho Bldg., Dallas, approx. **$37,500.** Koch & F ler, Great National Life Bldg., Dallas, en

Ont., St. Thomas—Municipality, sewage posal plant, to D. McDougall, 14 Main Bluevale, about **$27,000.**

BRIDGES, GRADE CROSSINGS

PROPOSED WORK

Mo., St. Louis—Bd. Pub. Serv., C. H. Ell pres., 304 City Hall, Zone 3, reconstruct vehicular deck of 21st St. bridge across Creek Valley, incl. work on wooden und structure and filling holes and resurfac road surface. $72,000. G. Brown, Sect. Brid & Bldgs., 325 City Hall, Zone 3, ch. engr.

Wash., Tacoma—Painting bridge over waterway, E. 11 St.; Puyallup River bri and Milwaukee viaduct both E. 11 St.; Puy lup River bridge, E. 21 St. $100,000. C. Forsbeck, City Hall, engr.

Wis., Sparta—H. L. Beckman, city clk. bridges, Water and Oak Sts. O. O. Bergm city engr.

BIDS ASKED

Bids Asked June 30

New York—State Dpt. P. Wks., Div. H Albany, C. H. Sells, supt. P. Wks., repair bridge 2 on Snake Hill-Saratoga Lake Out S.H. 8276, Contr. CD. 43-4, Saratoga Co. Pl deposit $5; adv. ENR 6/24.

Bids Asked July 2

D. C., Wash.—District Comrs., District Bl reconstructing bridge in line of Klingle over Rock Creek. Plans deposit $10.

GES, etc. (Bids Asked, Cont'd.)

Bids Asked July 2

nessee—State Hy. Dpt., Nashville. grad- raining, 2 bridges 2.727 mi. FAP 280-J(1), Co.

Bids Asked July 6

Mexico—State Hy. Comn., Santa Fe, mi. concrete, timber bridge, DARM 3(1) Co. **$120,000.** CD 9/1—ENR 9/3.

Bids Asked July 8

ifornia—State Hy. Dpt., 808 State Bldg., Angeles, Zone 12, bridge (portion) and aches over Los Angeles River, Figueroa Los Angeles Co. Over $25,000. G. T. y, 808 State Bldg., Los Angeles, **Zone 12,**

ifornia—State Div. Hys., State Bldg., Los les, reconstructing existing bridge deck s the Colorado River near Yuma, Ariz., rial Co. G. T. McCoy, P. Wks. Bldg., mento. state hy. engr.

Bids Asked July 13

, **St. Louis**—Bd. Pub. Serv., C. H. Ellaby, City Hall, Zone 3, cleansing, painting of combined eastern railroad and hy. aches and north approach of Douglas- Arthur Bridge across Mississippi River. 00. Plans deposit $10.

TRACTS AWARDED

a—State Hy. Comn., Ames, 1 multiple steel bridge involving transporting, erect- painting two 23x120 ft. continuous I-beam s and one 23x90 ft. plate girder span, 4, Harrison Co., to Paul B. Reis, 4313 ant St., Des Moines, **$35,807.** Bids 6/1. 5/21—ENR 5/27.

vada—State Dpt. Hys., Carson City, 0.076 concrete, steel bridge, approaches, Elko to Yancey Co., 2116 K St., Sacramento, **$38,793.** CD 6/11.

ennessee—Tennessee Valley Auth., C. H. ty, dir. Purchases, Knoxville, raising, n. existing Louisville & Nashville Rail- bridge over Tennessee River on Louisville Memphis Line, at Mile 221, Requisition 3, Schedule 2, to Felhaber Pile Co., Inc., E. 42 St., New York, N. Y. **$318,417.** Bids CD 5/4—ENR 5/6.

x., **Palestine**—International-Great North- R.R. Co., C. S. Kirkpatrick, ch. engr., n Station, Houston, replacing 17 sections rete and timber trestle across Trinity r at Long Lake, 12 mi. west of here, account. **$70,000.**

STREETS AND ROADS

S ASKED

Bids Asked June 29

D. C., **Wash.**—Pub. Bldgs. Admin., 18 and Sts., N.W., Wash., Zone 25, waterbound adam paving areas, addnl. sidewalks, etc., Temporary Federal Office Bldgs. T-3 and

ndiana—State Hy. Comm., S. G. Hadden, , Indianapolis, bituminous resurfacing mi. Contr. 2386, Wabash Co. $84,741. ns deposit $7.75. Bids 6/8 rejected. R. wer, ch. engr. CD 6/11—ENR 6/17, under

owa—State Hy. Comm., Ames, grading 30 cu. yd. west of U.S. 52, south of Gutten- g, FN-371, Clayton Co.; tiling and inci- tal work 1,560 lin. ft. along west side of . 69 at Carney, FN-104, Polk Co.; main- ance resurfacing 8.4 mi. Iowa 374 from bb to U.S. 71, M-3281, Clay Co.; 11.1 mi. Iowa 62 from Andrew north, 19.8 mi. a 67 from Bellevue to Iowa 64, 10.3 mi. a 113 from Iowa 64 to Iowa 62, M-6187, kson Co.; maintenance ditch cleaning 7.8 Iowa 374 from Webb to U.S. 71, M-3280, y Co.; rein.-con. box culvert extensions on nty Trunk Rd. W relocation, Sect. 23, and ween Sects. 25 and 26, Marcy Twp., F.S.N.- , Boone Co. F. R. White, ch. engr.

. **Y., New York**—President Bronx Boro., onx County Bldg., 851 Grand Concourse, dening, surfacing Bruckner Blvd. (formerly stern Blvd.) between Middletown Rd. and stchester Ave.

Ohio—At office of H. G. Sours, dir. State . Dpt., Columbus, widening and asphaltic crete surfacing 5.3 mi. on Sect. F of Hamil- -Cleves Rd., S.H. 44, State Route 128, U.S. ute 27 in Ross Twp., Butler Co., and Sect. of Hamilton-Cleves Rd., S.H. 44, State ute 128, U.S. Route 50-BYP in Crosby Twp., milton Co. $72,350.

Bids Asked July 2

Minnesota—State Hy. Dpt., St. Paul, 1,500 yd. subgrade excav., 10,000 cu. yd. stabil- d gravel, 949 cu. yd. mineral aggregate, SP 05-17 (Trunk Hy. 75-6), SP 0604-09 (TH -28), SP 0605-04 (TH 28-28); 20,000 gal. tuminous material and 485 tons mineral gregate 1.3 mi. SP 5705-03 (TH 59-174), uth Pennington Co. line. Plans deposit 35c ch project.

Pennsylvania—At office J. U. Shroyer, secy. t. Hys., Harrisburg, widening roadway oulders, flatening cut slopes (right side) 275 ft. Legislative Route R-336, Traffic oute 225, Coal Twp., Northumberland Co.

Bids Asked July 5

Que., Danville—Municipality of Shipton, H. W. Goodenough, clk., bridge. Dpt. P. Wks., Quebec City, engrs.

Bids Asked July 6

★ **New Mexico**—State Hy. Comn., Santa Fe., grading, draining, 3 multiple span concrete box culverts, base course surfacing 8.679 mi. SN FAP 90C(1) Santa Fe and San Miguel Counties. $550,000.

Bids Asked July 7

California—State Div. Hys., Sacramento, placing imported base material and applying armor coat 9 mi. road between Trinidad and Little Red Hen, Humboldt Co.; plant mix surfacing 5.2 mi. road between Yuba City and Butte Co. line, Sutter Co.; 9.7 mi. road between Yolo Co. line and 4 mi. south of Williams, Colusa Co.; 8.8 mi. road between Junction Route 83 near Blairsden and Beckworth, Plumas Co.; plant mix repairing 28.3 mi. road between Lamoine and Hilt Rd., Shasta and Siskiyou Counties; placing crusher run base and applying crusher run base 2.8 mi. road between 3½ mi. east of Bells Station and Merced Co. line, Santa Clara Co.; seal coat 21 mi. Nevada, Placer and Sierra Counties; various locations in Butte, Placer, Sacramento, Yolo, Colusa, Glenn, Yuba and Sutter Counties. G. T. McCoy, state hy. engr.

LOW BIDDERS

Arkansas—State Hy. Dpt., Little Rock, June 10, imprv. 2.699 mi. Drew Co., from Reynolds & Sutton Co., Tyler, Tex., **$33,405.** W. W. Michell, Little Rock, engr.

California—State Hy. Div., Sacramento, June 10, imprv. 2.3 mi. and widening rein.-con. bridge between Oceanside and Fallbrook, San Diego Co., from J. E. Haddock, Ltd., 3538 E. Foothill Blvd., Pasadena, **$127,251,** imprv. 9.8 mi. Los Angeles Co., from Schroeder & Co., 8140 Tujunga Ave., Rosco (Los Angeles), **$91,247.**

†California—U. S. Dpt. Agriculture, Emergency Rubber Project, 1206 Santee St., Los Angeles, June 14, roads and parking strips, from H. Sykes, Patterson, **$38,299.**

California—State Div. Hys., Sacramento, June 16, imprv. 7.6 mi. Napa Co., from A. G. Raisch, 2048 Market St., San Francisco, **$63,571*****4.7 mi. Monterey Co., from M. J. Ruddy & Son, Box 1122, Modesto, **$119,485***** 0.9 mi. Sonoma Co., from C. M. Syar, P. O. Box 1431, Vallejo, **$36,820.** G. T. McCoy, state hy. engr. CD 5/28—ENR 6/3.

Calif., San Francisco—City, Pub. Utilities Comn., City Hall, June 15, repaving street and/or sidewalk openings where paving has been removed by San Francisco Water Dpt., Spec. 348, from Pacific Pavements Co., Ltd., 85 Barstow St., **$30,820.** Est. over $25,000. CD 6/8.

D. C., Wash.—District Comrs. District Bldg., June 14, imprv. various roadways, with about 2,500 tons bituminous surface course and 3,500 tons asphaltic concrete base course, also imprv. roadway southwest from 4 St. to Naval Research Laboratory, from Wilmoth Paving Co., 60 P St. S.E., **$52,478** and **$38,585** respectively.

★ **Florida**—State Rd. Dpt., Tallahassee, June 17, from L. J. and W. L. Cobb, Inc., 1102 22 St., Tampa, 4.829 mi. Brevard Co. $67,196; imprv. 6 mi. Dixie Co. **$27,498;** 10.2 mi. Duval and Union Counties **$50,328;** 2.57 mi. Clay Co. **$120,383;** 7.16 mi. Hillsborough Co. and 8.2 mi. Polk Co. **$25,482*****from Hardaway Contg. Co., 15-11 St., Columbus, imprv. 8.19 mi. Escambia Co. **$232,189;** 4.607 mi. Bay Co. **$145,847***** from Powers & Archibald, Inc., Harvey Bldg., West Palm Beach, 4.563 mi. Dade Co., **$47,587** ***from W. H. Armston & Co., Dunedin, 6.5 mi. and 0.8 mi. Pinellas Co. **$28,605*****from Langston Constr. Co., Orlando, 0.4 mi. Orange Co **$39,843*****from Coggin & Deermont, Chipley, roads in Holmes, Walton and Washington Counties, **$38,892.** CD 6/2, 6/8, 6/9—ENR 6/10.

Idaho—Dpt. P. Wks., Bureau Hys., Boise, June 11, roadbed, culverts 6.686 mi. McCall-Stibnite Rd., DA-WM-4-A(2), Valley Co., from Colonial Constr. Co., 326 First St., Spokane, Wash., **$218,935.** CD 6/8.

Iowa—State Hy. Comn., Ames, furnishing, applying bituminous material and cover aggregate on primary roads both urban and rural, State MS-4, from Iowa Road Building Co., 1495 Keo Way, Des Moines. **$96,379.** R. F. White, ch. engr.

Minnesota—State Hy. Dpt., St. Paul, June 4, imprv. 12.8 mi. S.P. 0901-36A, B and C (Trunk Hy. 23-185), 0901-37 (TH 23-185) and 0901-38 (TH 23-185); SN-A-FAP 520 C(4), 520 A(2), 520 B(2) and 520 F(2), from J. W. Craig Co., 1814 N.E. California St., Minneapolis, **$74,933.** CD 5/20—ENR 5/27.

Missouri—State Hy. Comn., Jefferson City, June 18, imprv. 1.287 mi. Jackson Co., from Hoover Bros Constr. Co., Blue Ridge and Old 40 Hy., Kansas City, Mo. **$102,978;** 0.608 mi. and 1.189 mi. Jackson Co., from Perry McGlone Constr. Co., City Bank Bldg., Kansas City, Mo. **$35,959** and **$76,352** respectively. CD 6/15.

Mo., St. Louis—City, Bd. Pub. Serv., C. H. Ellaby, pres., 304 City Hall, Zone 3, June 15, imprv. Prague Ave., from Eyermann Contg. Co., 1210 S. Grand Blvd., Zone 4, **$18,691;** alleys in City Blocks 2733, 5070 and 5586, from R. C. Micotto Constr. 6918 Lansdowne Ave., Zone 9, **$17,128.** No bids received June 15, imprv. alley jobs, 1604 N, 2804, 5288 and 6186. CD 6/1—ENR 6/8.

N. Y., Brooklyn—President Brooklyn Boro, Boro Hall, June 17, from B. Turecamo & Co., foot 24 Ave. corn. N.W. Cropsey Lane, imprv. E. 14 St. **$74,707;** Oriental Blvd. **$43,968;** W. 27 St. **$83,651.** CD 6/9.

N. Y., Brooklyn—President Brooklyn Boro, Boro Hall, June 18, from Milljay Constr. Corp., 515 Avenue I, imprv. Calyer St. **$63,733;** N. Portland Ave. **$25,758;** Ridge Blvd. **$43,632;** 65 St. **$65,869.** CD 6/10.

N. Y., Brooklyn—Comr. Parks, Office Dpt. Parks, Arsenal Bldg., 64 St. and 5 Ave., Central Park, New York, June 18, imprv. Ocean Parkway, from B. Turecamo & Co., foot of 24 Ave., corn. N.W Cropsey Lane, **$182,318.** CD 6/10.

Ohio—State Hy. Dpt., Columbus, June 15, imprv. 0.099 mi. Lucas Co., from S. E. Johnson Co., 218 Terminal Bldg., Toledo, **$46,458,** est. $47,000***0.676 mi. Summit Co., from The Thorpe Constr. Co., 109 N. Union St., Akron, **$127,594;** est. $116,000***0.286 mi. Trumbull Co., from John Hill, 491 Lexington Ave., Mansfield **$70,985,** est. $72,050***2.122 mi. Ashland Co., from The Mansfield Asphalt Paving Co. 153 Orange St., Mansfield, **$37,024,** est. $38,200 ***4.732 mi. Mahoning Co., from The Standard Slag Co., 1200 City Bank Bldg., Youngstown, **$54,913,** est. $57,600***1.097 mi. Shelby Co., from Bowsman Washed Sand & Gravel Co., Box 506, Troy, **$25,643,** est. $25,700***1.397 mi. Stark Co., from The McCourt Constr. Co., 720 Home Ave., Akron, **$30,831,** est. $30,860*** 2.326 mi. Summit Co., from W. L. Magaw, Hawkins Rd., Richmond, Ind., **$28,735,** est. **$28,740.** Received no bids June 15, imprv. 1.95 mi. Guernsey Co. CD 6/11.

Virginia—State Hy. Dpt., Richmond, June 10, imprv. 0.37 mi. Proj. DA-NR 1277-M9, E, from McDowall & Wood, Roanoke, **$44,902;** 1.112 mi. Proj. DA-WR 1421 M1, Newport News, from R. W. Mitchell, Hilton Village, **$98,828.** CD 6/3.

CONTRACTS AWARDED

†Alabama—U. S. Eng., Grant St., west of Westwood St., Mobile, grading, drainage and paving road, Montgomery Co., to Hodgson Concrete & Asphalt Co., Perry St., Montgomery. Est. **$40,000.** Bids 6/9. CD 6/1.

†California—U. S. Eng., 74 New Montgomery St., San Francisco, road reconstruction, San Francisco Co., to L. J. Immel, Box 65, Station A, Berkeley. Awarded 6/14.

★ **†Colorado**—U. S. Eng., 909 17 St., Denver, paving, Contr. 1728-Eng-320, Denver Co., to Northwestern Eng. Co., Rapid City, S.D., **$500,000-$1,000,000.**

†Colorado—U. S. Eng., 1709 Jackson St., Omaha, Neb., road, Contr. 643-Eng-4151, Eagle Co., to Brown Constr. Co., Pueblo, **$100,000-$500,000.**

†Connecticut—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., roads, walks, No. 43-260, New London Co., to Carlo Bianchi & Co., Inc., 24 Union Ave., Framingham, Mass. Est. **$50,000-$100,000.** Bids 6/14. CD 6/11.

Conn., New Haven—Director P. Wks., Hall of Records, New Haven, imprv. Valley St. from West River to Haper Ave., Mountain Rd. from Valley St. East, to D. V. Frione & Co., Inc., 87 Foxon Rd., New Haven, **$52,325.** Bids 6/15. CD 6/10.

†Florida—U. S. Eng., Grant St. west of Westwood St., Mobile, Ala., roads, Bay Co., to Coggins & Deermont, Chipley, under **$50,000.** Awarded 6/10.

†Florida—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, roads, Leon Co., to L. J. & W. L. Cobb, 1102-22 St., Tampa, under **$50,000.** Awarded 6/10.

†Florida—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, road construction, Neg-Jax-43-1003, Orange Co., to Clyde J. Keys, Federal Bldg., St. Petersburg, under **$50,000.** Awarded 6/14.

†Georgia—U. S. Eng., Post Office Bldg., Savannah, surfacing, Contr. 819-Eng-1552, Chatham Co., to Wm. F. Bowe, Jr., Augusta, **$50,000-$100,000.**

†Georgia—U. S. Eng., Post Office Bldg., Savannah, roads, drainage and bridge, Contr. No. 819-Eng-1550, Thomas Co., to L. T. Barber, Moultrie, **$50,000-$100,000.**

†Illinois—U. S. Eng., Clock Tower Bldg., Rock Island, completion road, Contr. No. 741-Eng-4245, Lee Co., to A. C. Johnston & Son, Joliet, **$50,000-$100,000.**

Iowa—Bd. Supervs. Lee Co., Ft. Madison and Van Buren Co., Keosauqua, grading, etc. 161.336 cu. yd. Lee-Van Buren Co. line, to J. B. Hannahs, West Point, **$36,572.** Awarded 6/8.

Iowa—State Hy Comn., Ames, imprv. State MS-4, to Iowa Road Building Co., 1495 Keo Way, Des Moines, **$98,379. Bids 6/15. Received no bids June 15, cover aggregate in stockpiles on Iowa 51 from Postville to Waukon, M-2215, Allamakee Co. CD 6/8—ENR 6/10.**

Ia., Mason City—Bd. Supervs. Cerro Gordo Co., constructing, maintaining gravel various secondary roads, to John Schumacher, Bancroft, **$29,325.** R. E. Robertson, co. engr. Awarded 6/16. CD 6/2—ENR 6/10.

†Mississippi—U. S. Eng., Grant St. west of Westwood St., Mobile, Ala., paving, etc., Inv. 569-43-760, Grenada Co., to R. B. Tyler Co., 1446 Levering St., Louisville, Ky., under **$50,000.** Bids 5/31, awarded 6/11.

†Nebraska—U. S. Eng., 1709 Jackson St., Omaha, road surfacing, Redwillow Co., to Platte Valley Const. Co., Grand Island. Est. under **$50,000.**

REETS, etc. (Contractts awarded, Cont'd.)

Nebraska—Dpt. Roads & Irrigation, Lincoln, imprv. Patrol 26816. to Dobson & Robinson, 823 1st Natl. Bank Bldg., Lincoln **$27,649;** Patrol 56209, to Lee & Johnson. Inc., 215 Ins. Exch. Bldg., Sioux City, Ia. **$28,132.** Bids 6/10. CD 6/4.

†New Jersey—U. S. Eng., 120 Wall St., New York, N. Y., excavating, grading, paving roads, Essex Co., to Marsellis-Warner Corp., 10 Baldwin St., Montclair, **$50,000.**

†New Jersey—U. S. Eng., 120 Wall St., New York 5, N. Y., roads, Somerset Co., to W. Adams, 11 Central Ave., Tenafly. Est. **$50,000.**

†New York—U. S. Eng., Chimes Bldg., Syracuse, roads, Contr. 321-Eng-921, Oneida Co., to Peckham Road Corp., 47 Mamaroneck Ave., White Plains, under **$50,000.** CD 5/11—ENR 5/13.

†North Carolina—U. S. Eng., 308 Customhouse, Wilmington, paving and road construction, Guilford Co., to F. D. Cline, Fairview Rd., Raleigh. Est. **$100,000.** Awarded 6/12.

†Oklahoma—U. S. Eng., 231 W. Main St., Denison, Tex., constructing shoulder dust control, Contr. 257-Eng-2345, Kiowa Co., to Texas Bitulithic Co., 111 Commerce St., Dallas, Tex., **$100,000-$500,000.**

Oregon—State Hy. Comn., Portland, surfacing 7.4 mi., oiling 17.91 mi. Polk and Benton Counties, to R. O. Dail & Warren Bros., 8919 SE Foster St., Portland, **$96,336** ***imprv. road Benton Co., to P. B. Doherty, 3105 NE 55 St., Portland, **$37,080*****road, Jefferson and Wasco Counties, to D. C. and A. M. Williams, 104 NE 70 St., Portland. **$41,100.** Grand total $174,516. Bids 6/16. Rejected bids June 16, imprv. 5.26 mi. Polk Co., will readvertise in July. CD 6/10.

†Pennsylvania—U. S. Eng., Standard Oil Bldg., Baltimore, Md., paving, constructing roads, Contr. 174-Eng-1939, Cumberland Co., to D. B. Stabler, 3025 Derry St., Harrisburg, under **$50,000.**

Pennsylvania—State Hy. Dpt., Harrisburg, imprvs. 1,825 ft. Allegheny Co. to John F. Casey Co., P. O. Box 1888. Pittsburgh, **$136,330.** Bids 5/19, awarded 6/17. T. C. Frame, ch. engr.

†South Carolina—U. S. Eng., Fort Jackson, surface treating streets, roads and parking areas. Richland Co., to Carolina Contracting Co., 1112½ Taylor St., Columbia, under **$50,000.** Bids 6/11.

†South Dakota—U. S. Eng., Administration Bldg., Fort Peck, Mont., roads, Contr. 631-Eng-2776, Pennington Co., to H. F. Emme Constr. Co., Rapid City, under **$50,000.** CD 5/11—ENR 5/13.

†Texas—U. S. Eng., Alburquerque, N. M., dust palliative and surfacing, Contr. 911-Eng-1975. Presidio Co., to E. Loyd. 3101 Stadium St., Fort Worth, **$100,000-$500,000.**

†Texas—U. S. Eng., 231 W. Main St., Denison, dust palliative treatment, Childress Co., to Texas Bitulithic Co., 111 Commerce St., Dallas, under **$50,000.**

†Texas—U. S. Eng., Fort Sam Houston, walks, grounds, imprvs., etc., Coryell Co., to A. Farnell Blair, Gatesville. Est. **$25,000.**

†Texas—U. S. Eng., 25 St. and Avenue F, Galveston, concrete paving, Cameron Co., to R. W. Briggs & E. B. Darby, Sunset Rd., San Antonio, under **$50,000.**

†Texas—U. S. Eng., 231 W. Main St., Denison, grading, drainage, roads, streets, railway, Hunt Co., to Russ Mitchell, Inc., 2302 Jefferson St., Houston, under **$50,000.**

†Texas—U. S. Eng., 25 St. and Avenue F, Galveston, concrete paving, Sol. 359-43-CI50, Cameron Co., to Mitchel Darby, Pharr, **$100,000-$500,000.**

Utah—State Road Comm., Salt Lake City, June 8, road mix bituminous surfacing 33 mi. Tooele Co. to J. M. Sumsion, Springville, **$54,300.** Est. $70,760. CD 6/1.

Virginia—State Hy. Dpt., Richmond, imprv. 0.936 mi., Proj. DA-WN-1364-G, King and Queen Counties, to E. W. Grannis, Fedville, N. C., **$25,926.** Bids 6/10. CD 6/3.

†Washington—U. S. Eng., 800 3 Ave., Seattle, road, Pierce Co., to G. M. Grisdale, Shelton, under **$50,000.**

Ont., Fort William — Municipality, c/o Mayor, sidewalks on 12 streets, grading, graveling 6 streets, sewer, Piper Ave., day labor. **$25,000.** H. M. Woodhouse, City Hall, engr.

Ont., St. Catherines—H. H. Smith, municipality clk., 36 ft. pavement on Carlton St., day labor. B. F. Lampson, City Hall, engr.

Quebec—Dpt. National Defense (Army), Ottawa, Ont., roads at ordnance depot, to Raymond McDonell & Co., Ltd., 2020 Union Ave., Montreal, **$85,000.**

EARTHWORK WATERWAYS

PROPOSED WORK

†Arkansas—U. S. Eng., U. S. Post Office & Courthouse, Vicksburg, Miss., approx. 805,000 cu. yd. earthwork, Solic. No. 1106-43-217, Chilcot Co. $170,000.

†Florida—U. S. Eng., Grant St. west of Westwood St., Mobile, Ala., bids soon widening, deepening channel Gulf County Canal, Gulf Co.

†Idaho and **Washington**—U. S. Eng., Pittock Blk., Portland, Ore., channel imprvs., levees, flood walls and revetments for protection and channel imprvs., Spring Flat Creek, South Ford and Palouse River, constructing levees, flood-walls, and revetments for protection.

★**†Idaho**—U. S. Eng., Pittock Blk., Portland, Ore., channel imprvs., Jefferson and bank protection, Snake River, Washington Co. $743,000.

Ia., Mason City—Pearl Kellogg. city clk., flood protection construction for Willow Creek. $25,000.

Miss., Gulfport—Bd. Supervs. Harrison Co., addnl. 4 ft. depth to Gulfport harbor and ship channel.

†Oregon—U. S. Eng., Pittock Blk., Portland, channel imprvs. on tributaries of Columbia River in Alkalie Canyon, 2 hy. culverts and 3 wooden bridges. $125,000.

†Oregon—U. S. Eng., Pittock Blk., Portland, protection levees on Nehalem River. $23,000.

†Oregon—U. S. Eng., Pittock Blk., Portland, levees to protect tidal lands, and closure of washes at heads of Beaver Slough and Fat Elk Drainage Districts. $143,000.

★**†Texas**—U. S. Eng., 231 W. Main St., Denison, addnl. construction on Red River Dam Project, Grayson Co. $5,500,000 appropriated. CD 5/21—ENR 5/27.

†Washington—U. S. Eng., Pittock Blk., Portland, Ore., levees on Willapa River, Pacific Co. $127,000.

BIDS ASKED

Bids Asked July 19

†California — Bureau of Reclamation, Old Post Office Bldg., Sacramento, construction earthwork and structures, Station 45200 to Station 105075, Madera canal, Friant Division, Central Valley Project, Spec. 1054.

Bids Asked

Mont., Shepherd—Shepherd Drainage Dist., drainage sys. for 7,000 acres land incl. 22 mi. deep drain excav.

LOW BIDDERS

†Calif., Los Angeles—Pub. Bldg. Admin., F St. between 18 and 19 Sts. N. W., Wash., D. C., June 17, addnl. rip rap embankment at Quarantine Station. Terminal Island, from Case Constr. Co., San Pedro, **$17,572. FWA.** CD 6/4—ENR 6/10.

†Mississippi—U. S. Eng., U. S. Post Office & Courthouse, Vicksburg, June 10, 395,000 cu. yd. excav., 1.8 mi. clear and snag, approx. 4.2 mi. channel on Bobo Bayou, etc., Quitman and Panola Counties. from Morrissey Contg. Co., Vicksburg, **$50,000-$100,000.** CD 5/25—ENR 5/27.

†Texas—U. S. Eng., 25 St. and Avenue F, Galveston, flood protection, Sol. 359-43-C145, Cameron Co., from Dodds & Wedegartner, San Benito. CD 6/10—ENR 6/17.

CONTRACTS AWARDED

†California—U. S. Eng., 751 S. Figueroa St., Los Angeles, Zone 14, sewage disposal plant addn., Orange Co., to J. M. Roth Constr. Co., 6028 Whittier Blvd., Los Angeles. Awarded 6/8.

†Florida—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, outfall canal spillways, Marion Co., to Craggs Constr. Co., Ocala, under **$50,000.** Awarded 6/5.

†New Jersey—U. S. Eng., 120 Wall St., New York, N. Y., dolphins, catwalks, Essex Co., to Spearin, Preston & Burrows, Inc., 50 Church St., New York, N. Y. Est. **$75,000. (Correction**—contractor's name.) CD 6/15—ENR 6/17, under CA.

†Texas—U. S. Eng., Fort Sam Houston, irrigation sys., Tom Green Co., to Engineering Contractors, 923 Roosevelt Ave., San Antonio, **$50,000-$100,000.**

Tex., Pt. Neches—Texas Pub. Serv. Co., c/o Lower Neches Valley Auth., Beaumont and Pt. Neches, enlarging canals and pump. plant facilities, force account. **$115,000.**

UNCLASSIFIED

PROPOSED WORK

†California—IMPROVEMENTS—U. S. Eng., 1209-8 St., Sacramento, imprvs., bldg., Spec. 604, San Joaquin Co.

†Florida — IMPROVEMENTS — Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., bids soon, imprvs., storage, Dade Co., $54,000.

†Georgia—IMPROVEMENTS—U. S. Eng., Post Office Bldg., Savannah, imprvs. group bldg. addns., Job A-14276, Fulton Co. $160,000.

★**†Ia., Dubuque** — IMPROVEMENTS — City, imprvs. $1,000,000. CAA. CD 11/4—ENR 11/12.

★**†Ia., Waterloo** — IMPROVEMENTS — Civil Aeronautics Admin., 14 St. and Constitution Ave. N.W., Wash., D. C., imprvs. $1,000,000.

★**†Kansas**—IMPROVEMENTS—U. S. Eng., 10 E. 17 St., Kansas City, Mo., addnl. imprvs., Seward Co. Approx. $1,000,000.

Mass., Agawam — IMPROVEMENTS— P. Wks. Dpt., Municipal Bldg., Spr imprvs. Over $150,000.

★**Mass., East Boston**—IMPROVEME Dpt. P. Wks., 100 Nashua St., preliminary surveys, general expansion $4,750,000.

Mass., Holyoke—ARENA—Homer Ra Corp., 560 Bridge St., reconstructing Over $25,000.

†Missouri — RURAL ELECTRIFICATI Callaway County Electrical Co-ope Assn., Fulton, exten. electrical distr ties. $38,000. REA allot. CD 4/20— 4/29.

†Missouri — ELECTRIC LINES — Nort Missouri Electric Co-operative, Savanna mi. electric lines and acquisition, reha tion and integration 142.5 mi. existing $460,000. REA allot.

★**†Mo., Springfield**—IMPROVEMENTS— imprvs. $600,000. CAA. CD 10/9— 10/15.

†New Mexico—GASOLINE STORAGE TEM—U. S. Eng., Albuquerque, gasoline age sys. addn., De Baca Co. Under $1

†New Mexico—IMPROVEMENTS—U. Eng., Albuquerque, imprvs., Bernalillo Under $200,000.

†New Mexico — IMPROVEMENTS — U Eng., Albuquerque, imprvs., over $30 gasoline sys. addn., under $100,000, fore in Chaves Co.

†New Mexico — IMPROVEMENTS — U Eng., Albuquerque, imprvs., water s and sewage disposal sys., extens., addns Baca Co. Under $500,000.

†New Mexico — IMPROVEMENTS — Eng., Albuquerque, imprvs., Eddy Co. U $50,000.

†New Mexico — IMPROVEMENTS — U Eng., Albuquerque, imprvs., Lea Co. U $300,000.

†New Mexico — IMPROVEMENTS — Eng., Albuquerque, imprvs., Lea Co. $34

†New Mexico — IMPROVEMENTS — U Eng., Albuquerque, imprvs., San Juan Over $300,000.

North Carolina — ELECTRIFICAT LINES—Pee Dee Electric Membership C Wadesboro, exten. lines, Anson Co. $25

†N. D., Grand Forks—IMPROVEMEN Civil Aeronautics Admin., 608 S. Dearborn Chicago, Ill., imprvs., grading, surfa drainage, fencing, etc.

★**†Ohio**—IMPROVEMENTS—Goodyear craft Corp., Airport, Akron, im $3,000,000. Defense Plant Corp. will finan

S. D., Yankton — IMPROVEMENTS — proved $55,000 bond issue, imprvs. $100 CD 6/2—ENR 6/10.

†Tex., Brady—RURAL ELECTRIC DIS BUTION SYSTEM—McCulloch County Ele Co-operative, Inc., Brady, imprv. rural e trical distr. sys. $15,000 REA allot.

Tex., Taft—OIL WELL—Seaboard Oil Commerce Bldg., Houston, drilling, deve ing new 7,500 ft. oil well test.

Tex., St. Charles—OIL WELL—Contine Oil Co., Esperson Bldg., Houston, drilling, veloping new 8,600 ft. oil well.

Tex., Woodsboro—OIL WELL—South Minerals Corp., Corpus Christi, drilling, ing, developing new 6,000 ft. oil well test.

★**†Va., Danville** — IMPROVEMENTS — C imprvs. $600,000. CAA allot.

†Va., Gravelly Point—SEEDING, etc.—P Bldgs. Admin., 18 and F Sts. N.W., Wash. D. C., received no bids May 11, seeding, g ing, new areaways, at Temporary Fed Office Bldg. T-7, Court 5. FWA. CD 5/

†Washington—CLEARING, etc.—U. S. E 800 3 Ave., Seattle, clearing, excav., Clal Co., to F. E. Wilder, Box 1002, Port To send, **$50,000-$100,000.**

†Wis., Janesville—IMPROVEMENTS—R Co., W. Lindemann, clk., imprvs. $400, CAA.

†Wis., La Crosse—IMPROVEMENTS—C F. Kraemer, clk., imprvs. $400,000. CA J. H. Barth, city engr. CD 9/29—ENR 10/

BIDS ASKED

Bids Asked June 29

†South Carolina—FIRE ALARM SYSTEM U. S. Eng., 33 Customhouse, fire alarm sy Charleston Co. $60,000-$100,000.

Bids Asked About June 30

†Tex., Ft. Worth—IMPROVEMENTS—D Commerce, c/o Civil Aeronautics Admi P. O. Box 1689, imprvs., incl. excavati drainage, paving, conditioning, seeding, lig ing, etc. Plans deposit $20.

Bids Asked June 30

N. Y., New York—TRACKWAYS PAV MENT—Bd. Transportation, 250 Hudston S installing asphalt pavement in trackways surface railroads of New York City Tran System, Bid 22761.

ASSIFIED (Bids Asked, Cont'd.)

Bids Asked About July 1

Fort Worth — IMPROVEMENTS — Bothwell, city mgr., imprvs. CAA.

Bids Asked July 6

Baton Rouge—IMPROVEMENTS—East Rouge Police Jury, Courthouse, imprvs., istration bldg. A. Hays Town, Louisiana al Bank Bldg., archt. CD 3/9—ENR

Bids Asked

hio — ENGINE PROPELLER TEST OUSE—National Advisory Com. Aero- E. R. Sharp, admin. mgr., Cleveland rt, Cleveland, engine propeller test house and research equipment bldg. Total 2,000,000 incl. equip. CD 4/21—ENR

nsylvania—COAL TIPPLE, etc.—H. C. Coal & Coke Co., F. K. Drill, constr. in charge, Fayette Title & Trust Bldg., town, tipple, cleaning, screening and ing equip., harbor, incl. pier, steel sheet mooring piers, ice breakers, concrete incl. also filtration plant, Monongahela Greene Co. K. L. Connor, co. ch. engr. 11—ENR 5/13.

., Winnipeg—IMPROVEMENTS—Domin- Govt., Ottawa, Ont., Dpt. Munitions & ly, Ottawa, Ont., bids soon imprvs. Dpt. Defense for Air, Lisgar Bldg., Ottawa, archts. CD 4/30—ENR 5/6.

BIDDERS

rizona—IMPROVEMENTS—U. S. Eng., S. Figueroa St., Los Angeles, Zone 14, imprvs., No. 214 F, Maricopa Co., from D.C., 409 Luhrs Bldg., Phoenix, under 000.

rizona—IMPROVEMENTS—U. S. Eng., S. Figueroa St., Los Angeles, Zone 14, June 10, imprvs., No. 1337, Maricopa Schedule A, from Morrison-Knudsen Co., W. 5 St., Los Angeles***Schedule B, from er Constr. Co., 731 N. 19 Ave., Phoenix*** dule C, from Wallace & Wallace, S. 19 Phoenix, each under **$100,000.**

alifornia—IMPROVEMENTS—U. S. Eng., 8 St., Sacramento, imprvs., bulk gas ge facilities, Spec. 589, Kings Co., from kwart Co., Forum Bldg., Sacramento, un- **$50,000.**

Pennsylvania — IMPROVEMENTS — U. S. Eng., 925 New Federal Bldg., Pittsburgh, rvs., paving, draining, clearing, draining, ean Co., from Larkin Co., Camp Hill cadam 90 days), **$524,602;** from F. B. ler, Northumberland (macadam 150 days concrete 150 days), **$577,167** and **$538,856** ectively***from M. Bennett & Sons, In- a (concrete 90 days), **$592,388.** CD 2/10 NR 2/18.

Texas—FIRE ALARM SYSTEM—U. S. ., 25 St. and Avenue F, Galveston, June 8, omatic fire alarm sys., Sol. 359-43-C142, ris Co., from American District Telegraph U. S. National Bank Bldg., Galveston, er **$50,000.**

Texas—IMPROVEMENTS—U. S. Eng., 25 and Avenue F, Galveston, June 9, imprvs., s., water, sewer, gas lines, paving, drain- electric lines, etc., from H. B. Zachry P. O. Box 596, San Antonio **$100,000- ,000;** imprvs., from Noser Constr. Co., Allen, **$100,000-$500,000,** both Solic. 359-43- 0, Cameron Co. (**Correction**—low bidder in t portion of item). CD 6/14—ENR 6/17, er Public Bldgs.

†Texas—IMPROVEMENTS—U. S. Eng., 416 Wright Bldg., Tulsa, Okla., June 14, imprvs., 1, culverts, grading, base course, bldgs., or pool, etc., Sol. 957-Neg-43-303, Dallam from J. W. Bateson, Allen Bldg., Dallas, **00,000-$5,000,000.** CD 6/2—ENR 6/10.

Texas—IMPROVEMENTS—U. S. Eng., 25 and Avenue F, Galveston, imprvs., Sol. 43-C145, Hidalgo Co., from Harry Hedges, Runnels St., Houston.

Texas—IMPROVEMENTS—U. S. Eng., 25 and Avenue F, Galveston, imprvs., clear- , grubbing, concrete paving, Solic. 359-43-C- , Victoria Co., from Geo. Kies Co., 1700 se Rd., Austin, **$100,000-$500,000.** CD 6/14 ENR 6/17.

NTRACTS AWARDED

†Arizona—GASOLINE FUELING SYSTEM— S. Eng., 751 S. Figueroa St., Los Angeles 14, lif., gasoline fueling sys., Pima Co., to S. H. ledge, Route L, Box 5, Coachella, Calif., der **$30,000.**

†California—FENCING—U. S. Eng., 74 New ontgomery St., San Francisco, fencing, San ancisco Co., to Jere Strizek, 320 Judah St., n Francisco. Awarded 6/15.

†California—IMPROVEMENTS—U. S. Eng., 1 S. Figueroa St., Los Angeles, Zone 14, prvs., No. 1340, Riverside Co., to L. P. herer & T. C. Prichard, 208½ Orange St., edlands, under **$50,000.**

†California—STREET LIGHTING SYSTEM U. S. Eng., 74 New Montgomery St., San ancisco, street lighting sys., San Francisco ., to Scott-Buttner Electric Co., 534-20th , Oakland. Awarded 6/18.

Conn., Hartford—SILO—G. Fox & Co., Inc., 960-980 Main St., masonry silo, incl. ash handling equip., Main St., to SNE Cont. Co., Inc., 242 Trumbull St. Est. **$50,000.** E. E. Ashley, c/o owner, archt.

†Florida—FIRE ALARM SYSTEM—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, fire alarm sys., Neg-Jax-43-876, Clay Co., to American District Telegraph Co., Western Union Bldg., Jacksonville, under **$50,000.** Awarded 6/9.

†Florida — GRASSING — U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, grassing, Neg-Jax-43-1018, Lee Co., to Mike L. Blank Nursery, Delray Beach, under **$100,000.** Awarded 6/14.

†Florida—GRASSING—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, grassing, Neg-Jax-43-970, Palm Beach Co., to Holding Farms Co., Inc., Dania. Est. under **$100,000.** Awarded 6/10.

†Florida—IMPROVEMENTS—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, imprvs., Neg-Jax-43-895, Dade Co., to James Sotille, Sr., Homestead, under **$500,000.** Awarded 5/26.

†Florida—IMPROVEMENTS—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, imprvs., Neg-Jax-43-1916, Duval Co., to Hillyer & Lovan, 111 W. Ashley St., Jacksonville, under **$50,000.** Awarded 6/12.

†Florida — IMPROVEMENTS — U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, imprvs., grading, draining, stabilization, paving, grassing shoulders, underground ducts, mucking, Lee Co., to Cone & Manly, Caesar St. and Cumberland Rd., Tampa, under **$500,000.** Awarded 6/16.

†Florida—PARKING APRONS—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, parking aprons, to Cleary Brothers Constr. Co., Georgia Ave., West Palm Beach, est. under **$500,000;** paving parking aprons, to H. E. Wolf Constr. Co., St. Augustine, under **$500,000,** both Neg-Jax-43-1036, Palm Beach Co. Awarded 6/17.

†Florida—RAMP, etc.—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, ramp, bldgs., Neg-Jax-43-948, Orange Co., to Stevens & Sipple, 1920 N. Orange Ave., Orlando, under **$50,000.** Awarded 6/4.

†Florida—SPRIGGING and SEEDING—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, sprigging, seeding, Neg-Jax-43-1013, Volusia Co., to Robert D. Yancey, E. 22 St., Jacksonville, Zone 6, under **$50,000.** Awarded 6/14.

★**†Fla., Bunnell** — IMPROVEMENTS — Civil Aeronautics Adm., Municipal Airport, Atlanta, Ga., imprvs., Sec. 2, to McDougald Constr. Co., Northside Dr. N.W., Atlanta, Ga., **$817,428;** Sect. 1, to Rutland Constr. Co., Decatur, Ga., **$474,188.** CD 6/4.

†Georgia—IMPROVEMENTS—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, imprvs,. Neg-Jax-43-984, Lowndes Co., to Coffee Constr. Co., Eastman, under **$100,000.** Awarded 6/10.

★**†Idaho**—IMPROVEMENTS—U. S. Eng., Pittock Blk., Portland, Ore., imprvs. Elmore Co., to J. A. Terteling & Sons, Robert Noble Bldg., Boise, over **$1,000,000.**

†Idaho—SPUR TRACK—U. S. Eng., Pittock Blk., Portland, Ore., spur track, Contr. 698-Eng-3442, Ada Co., to Geo. H. Wells Co., Hermiston, Ore., under **$50,000.**

†Indiana—CONSTRUCTION—U. S. Eng., 612 Federal Bldg., Louisville, Ky., concrete construction, Contr. 559-Eng-6970 Vigo Co., to J. R. Griffith Co., Racine, Wis., **$100,000-$500,000.**

†Iowa—FENCING—U. S. Eng., 1709 Jackson St., Omaha, Neb., fencing, Woodbury Co., to McLein-Wolff Co., Yankton, S. D. Est. under **$50,000.**

†Kansas—IMPROVEMENTS—U. S. Eng., 10 E. 17 St., Kansas City, Mo., imprvs., to Reno Const. Co., Merriam, est. under **$200,000;** apron floodlights, to Jones Bros. Const. Co., Joplin, est. under **$200,000,** both Montgomery Co.

†Kansas—IMPROVEMENTS—U. S. Eng., 10 E. 17 St., Kansas City, Mo., imprvs., bldgs., Saline Co., to MacDonald Constr. Co., and J. J. Gilmore, 3829 W. Pine St., St. Louis, Mo. Est. under **$50,000.**

†Kan., Olathe—SPRINKLER SYSTEM—**Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., installing suprotex-deluge sprinkler sys., in 4 hangar bldgs., Naval Air Sta., NOY 6336, to Grinnell Sprinkler Co., 21 W. 10 St., Kansas City, Mo., $76,639.**

★**†Kentucky**—IMPROVEMENTS—U. S. Eng., 612 Federal Bldg., Louisville, imprvs., Jefferson Co., to Western Contg. Corp., 2100 E. 4 St., Sioux City, Ia., over **$1,000,000.** CD 6/3—ENR 6/10.

†Maine—GRADING, etc.—U. S. Eng., 31 St. James Ave., Boston, Mass., grading, turfing, No. 175-43-Neg-350, Penobscot Co., to T. W. Cunningham, Inc., 15 State St., Bangor.

†Massachusetts—WHARF—U. S. Eng., 31 St. James Ave., Boston, timber wharf, No. 175-43-Neg-342, Barnstable Co., to Coleman Brothers Corp., 245 State St., Boston. Est. under **$50,000.** CD 6/2—ENR 6/10.

†Mississippi—IMPROVEMENTS—U. S. Eng., Grant St., west of Westwood St., Mobile, Ala., imprvs., bldgs., incl. outside utilities, etc., Inv. 569-43-772, Harrison Co., to Perry Constr. Co., Philadelphia. Est. **$50,000.** Bid **6/3,** awarded 6/10.

†Nebraska — FENCING — U. S. Eng., 1709 Jackson St., Omaha, fencing, Thayer Co., to Korshoj Const. Co., Blair. Est. under **$50,000.**

†New Mexico—GASOLINE STORAGE FACILITIES—U. S. Eng., Albuquerque, addnl. gasoline storage facilities, Chaves Co., to De-Luca & Sons, 1145 Filbert St., San Francisco, Calif., under **$50,000.**

†New Mexico —IMPROVEMENTS — U. S Eng., Albuquerque, imprvs., addnl. roads, parking areas, Chaves Co., to Allison, Armstrong & Thygesen, Roswell, under **$200,000.** Awarded 6/18.

†New Mexico — IMPROVEMENTS — U. S. Eng,. Albuquerque, imprvs., bldgs., housing facilities, Chaves Co., to C. H. Leavell, 109 N. Stanton St., El Paso, Tex., under **$200,000.** Awarded 6/2.

†New Mexico — IMPROVEMENTS — U. S. Eng., Albuquerque, imprvs., storage facilities, Curry Co., to Lembke Constr. Co., 324 N. 3rd St., Albuquerque, under **$50,000.** Awarded 6/19.

†New Mexico — IMPROVEMENTS — U. S. Eng., Albuquerque, imprvs., turning pad, Lea Co., to Hoppock & Wagner, Waco, Tex. Est. under **$500,000.**

†New Mexico — IMPROVEMENTS — U. S. Eng., Albuquerque, imprvs., roads, sidewalks, parkway, Otero Co., to H. Thygesen, Albuquerque, under **$200,000.** Awarded 6/15.

†N. Y., New York—DOCK REPAIRS, etc.—At office J. McNeely, dist. engr. Pub. Bldgs. Admin., 731 Custom House, dock and ferry rack repairs, U. S. Barge Office, to General Contr. & Engr. Co., 40 Rector St., **$29,960. FWA.** Bids 5/28. CD 5/13—ENR 5/20.

†New York—IMPROVEMENTS—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., imprvs., No. 43-240, Suffolk Co., to Eastern Constr. Corp., 98 Lyon St., New Haven, Conn. Est. **$50,000-$100,000.** CD 6/8—ENR 6/10.

†North Carolina—IMPROVEMENTS—U. S. Eng., 308 Customhouse, Wilmington, imprvs., bldgs., Forsyth Co., to Southeastern Constr. Co., 208 W. Second St., Charlotte, **$100,000-$500,000.** Awarded 6/12.

†North Carolina—TRAINING AREA—U. S. Eng., 308 Customhouse, Wilmington, constructing training area, Contr. No. 982-Eng-1848, Cumberland Co., to J. R. Young, General Contractor, Fayetteville, under **$50,000.**

★**†North Carolina**—RAILROAD IMPROVEMENTS—Atlantc & East Carolina Ry. Co., H. P. Edwards, pres, and genl. mgr., New Bern, railroad imprvs., incl. roadbed ballasting, new cross ties, drainage, strengthening bridges and other structures, heavier rails between Kinston and Morehead City, to T. A. Loving & Co., Bank of Wayne Bldg., Goldsboro. Est. **$600,000.** Navy Dpt. will finance.

O., Cleveland—GAS HOLDERS—Standard Oil Co. of Ohio, H. West, Midland Bldg., 2 steel plate gas holders, to Hammond Iron Works, Hammond, Ind. **Est. $40,000.**

†Oklahoma — FIRE ALARM SYSTEM — U. S. Eng., 415 Wright Bldg., Tulsa, installing fire alarm sys., Contr. 957-Eng-1912, Okmulgee Co., to American District Telegraph Co. of Oklahoma, 400 N. Bway., Oklahoma City, under **$50,000.**

†Oklahoma—IMPROVEMENTS—U. S. Eng., 231 W. Main St., Denison, Tex., imprvs., utilities, Carter Co., to Texas Bitulithic Co., 111 Commerce St., Dallas, Tex., **$100,000-$500,000.**

★**†Oklahoma — IMPROVEMENTS — U. S. Eng., 416 Wright Bldg., Tulsa, imprvs., Oklahoma Co., to Chas. M. Dunning Contr. Co., 420½ N. Hudson St., Oklahoma City. Est. over $2,000,000.** CD 6/17.

†Rhode Island—IMPROVEMENTS—U. S. Eng., 819 Industrial Trust Bldg., Providence, imprvs., No. 43-254, Kent Co., to M. A. Gammino Constr. Co., 728 Valley St., Providence. Est. **$50,000-$100,000.** Bids 6/7.

†South Carolina—IMPROVEMENTS—U. S. Eng., 33 Customhouse, Charleston, imprvs., concrete roads and asphalt on top surface, Richland Co., to Southern Constr. Co., Barnwell. Est. less than $150,000. Awarded 6/16.

†South Dakota—FENCING—U. S. Eng., 1709 Jackson St., Omaha, Neb., fencing, Davison Co., to H. W. Cable, Mitchell. Est. under **$50,000.**

†South Dakota—PARKING APRON—U. S. Eng., 1709 Jackson St., Omaha, Neb., parking apron, Contr. 643-Eng-4147, Hughes Co., to McCree & Co., 918 New York Bldg., St. Paul, Minn., and Jay W. Craig Co., 1814 N. E. California St., Minneapolis, Minn., **$100,000-$500,000.**

†Texas—GUNNERY RANGE—U. S. Eng., Alburquerque, N. M., gunnery range, Constr. 911-Eng-2001, Ward Co., to Uvalde Constr. Co., Sante Fe Bldg., Dallas, under **$50,000.**

†Texas—IMPROVEMENTS—U. S. Eng., Fort Sam Houston, imprvs., Bexar Co., to Briggs & Killian, Sunset Rd., San Antonio, over **$50,000.**

†Texas—IMPROVEMENTS—U. S. Eng., 25 St. and Avenue F, Galveston, imprvs., Sol. 359-43-C140, Part, Cameron Co., to Noser Constr. Co., McAllen, **$100,000-$500,000.**

STREETS, etc. (Contractts awarded, Cont'd.)

Nebraska—Dpt. Roads & Irrigation, Lincoln, imprv. Patrol 26816, to Dobson & Robinson, 823 1st Natl. Bank Bldg., Lincoln **$27,649;** Patrol 56209, to Lee & Johnson, Inc., 215 Ins. Exch. Bldg., Sioux City, Ia. **$28,132.** Bids 6/10. CD 6/4.

†New Jersey—U. S. Eng., 120 Wall St., New York, N. Y., excavating, grading, paving roads, Essex Co., to Marsellis-Warner Corp., 10 Baldwin St., Montclair, **$50,000.**

†New Jersey—U. S. Eng., 120 Wall St., New York 5, N. Y., roads, Somerset Co., to W. Adams, 11 Central Ave., Tenafly. Est. **$50,000.**

†New York—U. S. Eng., Chimes Bldg., Syracuse, roads, Contr. 321-Eng-921, Oneida Co., to Peckham Road Corp., 47 Mamaroneck Ave., White Plains, under **$50,000.** CD 5/11—ENR 5/13.

†North Carolina—U. S. Eng., 308 Customhouse, Wilmington, paving and road construction, Guilford Co., to F. D. Cline, Fairview Rd., Raleigh. Est. **$100,000.** Awarded 6/12.

†Oklahoma—U. S. Eng., 231 W. Main St., Denison, Tex., constructing shoulder dust control, Contr. 257-Eng-2345, Kiowa Co., to Texas Bitulithic Co., 111 Commerce St., Dallas, Tex., **$100,000-$500,000.**

Oregon—State Hy. Comn., Portland, surfacing 7.4 mi., oiling 17.91 mi. Polk and Benton Counties, to R. O. Dall & Warren Bros., 8919 SE Foster St., Portland, **$96,336** ***imprv. road Benton Co., to P. B. Doherty, 3105 NE 55 St., Portland, **$37,080*****road, Jefferson and Wasco Counties, to D. C. and A. M. Williams, 104 NE 70 St., Portland. **$41,100.** Grand total $174,616. Bids 6/16. Rejected bids June 16, imprv. 5.26 mi. Polk Co., will readvertise in July. CD 6/10.

†Pennsylvania—U. S. Eng., Standard Oil Bldg., Baltimore, Md., paving, constructing roads, Contr. 174-Eng-1939, Cumberland Co., to D. B. Stabler, 3025 Derry St., Harrisburg, under **$50,000.**

Pennsylvania—State Hy. Dpt., Harrisburg, imprvs. 1,825 ft. Allegheny Co. to John F. Casey Co., P. O. Box 1888. Pittsburgh, **$136,330.** Bids 5/19, awarded 6/17. T. C. Frame, ch. engr.

†South Carolina—U. S. Eng., Fort Jackson, surface treating streets, roads and parking areas, Richland Co., to Carolina Contracting Co., 1112½ Taylor St., Columbia, under **$50,000.** Bids 6/11.

†South Dakota—U. S. Eng., Administration Bldg., Fort Peck, Mont., roads, Contr. 631-Eng-2776, Pennington Co., to H. F. Emme Constr. Co., Rapid City, under **$50,000.** CD 5/11—ENR 5/13.

†Texas—U. S. Eng., Alburquerque, N. M., dust palliative and surfacing, Contr. 911-Eng-1975, Presidio Co., to E. Loyd, 3101 Stadium St., Fort Worth, **$100,000-$500,000.**

†Texas—U. S. Eng., 231 W. Main St., Denison, dust palliative treatment, Childress Co., to Texas Bitulithic Co., 111 Commerce St., Dallas, under **$50,000.**

†Texas—U. S. Eng., Fort Sam Houston, walks, grounds, imprvs., etc., Coryell Co., to A. Farnell Blair, Gatesville. Est. **$25,000.**

†Texas—U. S. Eng., 25 St. and Avenue F, Galveston, concrete paving, Cameron Co., to R. W. Briggs & E. B. Darby, Sunset Rd., San Antonio, under **$50,000.**

†Texas—U. S. Eng., 231 W. Main St., Denison, grading, drainage, roads, streets, railway, Hunt Co., to Russ Mitchell, Inc., 2302 Jefferson St., Houston, under **$50,000.**

†Texas—U. S. Eng., 25 St. and Avenue F, Galveston, concrete paving, Sol. 359-43-CI50, Cameron Co., to Mitchel Darby, Pharr, **$100,000-$500,000.**

Utah—State Road Comm., Salt Lake City, June 8, road mix bituminous surfacing 33 mi. Tooele Co. to J. M. Sumsion, Springville, **$54,300.** Est. $70,760. CD 6/1.

Virginia—State Hy. Dpt., Richmond, imprv. 0.936 mi., Proj. DA-WN-1364-G, King and Queen Counties, to E. W. Grannis, Fedville, N. C., **$25,926.** Bids 6/10. CD 6/3.

†Washington—U. S. Eng., 800 3 Ave., Seattle, road, Pierce Co., to G. M. Grisdale, Shelton, under **$50,000.**

Ont., Fort William — Municipality, c/o Mayor, sidewalks on 12 streets, grading, graveling 6 streets, sewer, Piper Ave., day labor. **$25,000.** H. M. Woodhouse, City Hall, engr.

Ont., St. Catherines—H. H. Smith, municipality clk., 36 ft. pavement on Carlton St., day labor. B. F. Lampson, City Hall, engr.

Quebec—Dpt. National Defense (Army), Ottawa, Ont., roads, at ordnance depot, to Raymond McDonell & Co., Ltd., 2020 Union Ave., Montreal, **$85,000.**

EARTHWORK WATERWAYS

PROPOSED WORK

†Arkansas—U. S. Eng., U. S. Post Office & Courthouse, Vicksburg, Miss., approx. 805,000 cu. yd. earthwork, Solic. No. 1106-43-217, Chilcot Co. $170,000.

†Florida—U. S. Eng., Grant St. west of Westwood St., Mobile, Ala., bids soon widening, deepening channel Gulf County Canal, Gulf Co.

†Idaho and **Washington**—U. S. Eng., Pittock Blk., Portland, Ore., channel imprvs., levees, flood walls and revetments for protection and channel imprvs., Spring Flat Creek, South Ford and Palouse River, constructing levees, flood-walls, and revetments for protection.

★**†Idaho**—U. S. Eng., Pittock Blk., Portland, Ore., channel imprvs., Jefferson and bank protection, Snake River, Washington Co. $743,000.

Ia., Mason City—Pearl Kellogg, city clk., flood protection construction for Willow Creek. $25,000.

Miss., Gulfport—Bd. Supervs. Harrison Co., addnl. 4 ft. depth to Gulfport harbor and ship channel.

†Oregon—U. S. Eng., Pittock Blk., Portland, channel imprvs. on tributaries of Columbia River in Alkalie Canyon, 2 hy. culverts and 3 wooden bridges. $125,000.

†Oregon—U. S. Eng., Pittock Blk., Portland, protection levees on Nehalem River. $23,000.

†Oregon—U. S. Eng., Pittock Blk., Portland, levees to protect tidal lands, and closure of washes at heads of Beaver Slough and Fat Elk Drainage Districts. $143,000.

★**†Texas**—U. S. Eng., 231 W. Main St., Denison, addnl. construction on Red River Dam Project, Grayson Co. $5,500,000 appropriated. CD 5/21—ENR 5/27.

†Washington—U. S. Eng., Pittock Blk., Portland, Ore., levees on Willapa River, Pacific Co. $127,000.

BIDS ASKED

Bids Asked July 19

†California — Bureau of Reclamation, Old Post Office Bldg., Sacramento, construction earthwork and structures, Station 45200 to Station 105075, Madera canal, Friant Division, Central Valley Project, Spec. 1054.

Bids Asked

Mont., Shepherd—Shepherd Drainage Dist., drainage sys. for 7,000 acres land incl. 22 mi. deep drain excav.

LOW BIDDERS

†Calif., Los Angeles—Pub. Bldg. Admin., F St. between 18 and 19 Sts. N. W., Wash., D. C., June 17, addnl. rip rap embankment at Quarantine Station, Terminal Island, from Case Constr. Co., San Pedro, **$17,572. FWA.** CD 6/4—ENR 6/10.

†Mississippi—U. S. Eng., U. S. Post Office & Courthouse, Vicksburg, June 10, 395,000 cu. yd. excav., 1.8 mi. clear and snag, approx. 4.2 mi. channel on Bobo Bayou, etc., Quitman and Panola Counties, from Morrissey Contg. Co., Vicksburg, **$50,000-$100,000.** CD 5/25—ENR 5/27.

†Texas—U. S. Eng., 25 St. and Avenue F, Galveston, flood protection, Sol. 359-43-C145, Cameron Co., from Dodds & Wedegartner, San Benito. CD 6/10—ENR 6/17.

CONTRACTS AWARDED

†California—U. S. Eng., 751 S. Figueroa St., Los Angeles, Zone 14, sewage disposal plant addn., Orange Co., to J. M. Roth Constr. Co., 6028 Whittier Blvd., Los Angeles. Awarded 6/8.

†Florida—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, outfall canal spillways, Marion Co., to Craggs Constr. Co., Ocala, under **$50,000.** Awarded 6/5.

†New Jersey—U. S. Eng., 120 Wall St., New York, N. Y., dolphins, catwalks, Essex Co., to Spearin, Preston & Burrows, Inc., 50 Church St., New York, N. Y. Est. **$75,000.** **(Correction**—contractor's name.) CD 6/15—ENR 6/17, under CA.

†Texas—U. S. Eng., Fort Sam Houston, irrigation sys., Tom Green Co., to Engineering Contractors, 923 Roosevelt Ave., San Antonio, **$50,000-$100,000.**

Tex., Pt. Neches—Texas Pub. Serv. Co., c/o Lower Neches Valley Auth., Beaumont and Pt. Neches, enlarging canals and pump. plant facilities, force account, **$115,000.**

UNCLASSIFIED

PROPOSED WORK

†California—IMPROVEMENTS—U. S. Eng., 1209-8 St., Sacramento, imprvs., bldg., Spec. 604, San Joaquin Co.

†Florida — IMPROVEMENTS — Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., bids soon, imprvs., storage, Dade Co., $54,000.

†Georgia—IMPROVEMENTS—U. S. Eng., Post Office Bldg., Savannah, imprvs. group bldg. addns., Job A-14276, Fulton Co. $160,000.

★**†Ia., Dubuque** — IMPROVEMENTS — City, imprvs. $1,000,000. CAA. CD 11/4—ENR 11/12.

★**†Ia., Waterloo** — IMPROVEMENTS — Civil Aeronautics Admin., 14 St. and Constitution Ave. N.W., Wash., D. C., imprvs. $1,000,000.

★**†Kansas**—IMPROVEMENTS—U. S. Eng., 10 E. 17 St., Kansas City, Mo., addnl. imprvs., Seward Co. Approx. $1,000,000.

Mass., Agawam — IMPROVEMENTS— P. Wks. Dpt., Municipal Bldg., Spring imprvs. Over $150,000.

★**Mass., East Boston**—IMPROVEMEN Dpt. P. Wks., 100 Nashua St., Bo preliminary surveys, general expansion im $4,750,000.

Mass., Holyoke—ARENA—Homer Rai Corp., 560 Bridge St., reconstructing a Over $25,000.

†Missouri — RURAL ELECTRIFICATIO Callaway County Electrical Co-oper Assn., Fulton, exten. electrical distr fa ties. $38,000. REA allot. CD 4/20— 4/29.

†Missouri — ELECTRIC LINES — North Missouri Electric Co-operative, Savannah, mi. electric lines and acquisition, rehab tion and integration 142.5 mi. existing $460,000. REA allot.

★**†Mo., Springfield**—IMPROVEMENTS— imprvs. $600,000. CAA. CD 10/9— 10/15.

†New Mexico—GASOLINE STORAGE TEM—U. S. Eng., Albuquerque, gasoline age sys. addn., De Baca Co. Under $100

†New Mexico—IMPROVEMENTS—U. Eng., Albuquerque, imprvs., Bernalillo Under $200,000.

†New Mexico — IMPROVEMENTS — U. Eng., Albuquerque, imprvs., over $300, gasoline sys. addn., under $100,000, foreg in Chaves Co.

†New Mexico — IMPROVEMENTS — U. Eng., Albuquerque, imprvs., water su and sewage disposal sys., extens., addns., Baca Co. Under $500,000.

†New Mexico — IMPROVEMENTS — U Eng., Albuquerque, imprvs., Eddy Co. U $50,000.

†New Mexico — IMPROVEMENTS — U. Eng., Albuquerque, imprvs., Lea Co. U $300,000.

†New Mexico — IMPROVEMENTS — U Eng., Albuquerque, imprvs., Lea Co. $345,

†New Mexico — IMPROVEMENTS — U. Eng., Albuquerque, imprvs., San Juan Over $300,000.

North Carolina — ELECTRIFICAT LINES—Pee Dee Electric Membership Co Wadesboro, exten. lines, Anson Co. $25,

†N. D., Grand Forks—IMPROVEMENT Civil Aeronautics Admin., 608 S. Dearborn Chicago, Ill., imprvs., grading, surfac drainage, fencing, etc.

★**†Ohio**—IMPROVEMENTS—Goodyear craft Corp., Airport, Akron, imp $3,000,000. Defense Plant Corp. will financ

S. D., Yankton — IMPROVEMENTS — proved $55,000 bond issue, imprvs. $100, CD 6/2—ENR 6/10.

†Tex., Brady—RURAL ELECTRIC DIST BUTION SYSTEM—McCulloch County Elec Co-operative, Inc., Brady, imprv. rural e trical distr. sys. $15,000 REA allot.

Tex., Taft—OIL WELL—Seaboard Oil Commerce Bldg., Houston, drilling, devel ing new 7,500 ft. oil well test.

Tex., St. Charles—OIL WELL—Continen Oil Co., Esperson Bldg., Houston, drilling, veloping new 8,600 ft. oil well.

Tex., Woodsboro—OIL WELL—South Minerals Corp., Corpus Christi, drilling, c ing, developing new 6,000 ft. oil well test.

★**†Va., Danville** — IMPROVEMENTS — C imprvs. $600,000. CAA allot.

†Va., Gravelly Point—SEEDING, etc.—P Bldgs. Admin., 18 and F Sts. N.W., Wash. D. C., received no bids May 11, seeding, gra ing, new areaways, at Temporary Fede Office Bldg. T-7, Court 5. FWA. CD 5/7

†Washington—CLEARING, etc.—U. S. En 800 3 Ave., Seattle, clearing, excav., Clall Co., to F. E. Wilder, Box 1002, Port Tow send, **$50,000-$100,000.**

†Wis., Janesville—IMPROVEMENTS—Ro Co., W. Lindemann, clk., imprvs. $400,0 CAA.

†Wis., La Crosse—IMPROVEMENTS—Ci F. Kraemer, clk., imprvs. $400,000. CA J. H. Barth, city engr. CD 9/29—ENR 10/

BIDS ASKED

Bids Asked June 29

†South Carolina—FIRE ALARM SYSTEM U. S. Eng., 33 Customhouse, fire alarm sy Charleston Co. $60,000-$100,000.

Bids Asked About June 30

†Tex., Ft. Worth—IMPROVEMENTS—D Commerce, c/o Civil Aeronautics Admi P. O. Box 1689, imprvs., incl. excavati drainage, paving, conditioning, seeding, ligh ing, etc. Plans deposit $20.

Bids Asked June 30

N. Y., New York—TRACKWAYS PAV MENT—Bd. Transportation, 250 Hudson S installing asphalt pavement in trackways surface railroads of New York City Tran System, Bid 22761.

ASSIFIED (Bids Asked, Cont'd.)

Bids Asked About July 1

x., **Fort Worth** — IMPROVEMENTS — Bothwell, city mgr., imprvs. CAA.

Bids Asked July 6

Baton Rouge—IMPROVEMENTS—East Rouge Police Jury, Courthouse, imprvs., nistration bldg. A. Hays Town, Louisiana onal Bank Bldg., archt. CD 3/9—ENR

Bids Asked

Ohio — ENGINE PROPELLER TEST HOUSE—National Advisory Com. Aeroics, E. R. Sharp, admin. mgr., Cleveland port, Cleveland, engine propeller test house and research equipment bldg. Total $2,000,000 incl. equip. CD 4/21—ENR

nnsylvania—COAL TIPPLE, etc.—H. C. k Coal & Coke Co., F. K. Drill, constr. in charge, Fayette Title & Trust Bldg., ntown, tipple, cleaning, screening and ding equip., harbor, incl. pier, steel sheet g, mooring piers, ice breakers, concrete s, incl. also filtration plant, Monongahela ., Greene Co. K. L. Connor, co. ch. engr. 5/11—ENR 5/13.

an., **Winnipeg**—IMPROVEMENTS—Domin- Govt., Ottawa, Ont., Dpt. Munitions & ply, Ottawa, Ont., bids soon imprvs. Dpt. l. Defense for Air, Lisgar Bldg., Ottawa, ., archts. CD 4/30—ENR 5/6.

W BIDDERS

Arizona—IMPROVEMENTS—U. S. Eng., S. Figueroa St., Los Angeles, Zone 14, f., imprvs., No. 214 F, Maricopa Co., from O.C., 409 Luhrs Bldg., Phoenix, under ,000.

Arizona—IMPROVEMENTS—U. S. Eng., S. Figueroa St., Los Angeles, Zone 14, f., June 10, imprvs., No. 1337, Maricopa Schedule A, from Morrison-Knudsen Co., W. 5 St., Los Angeles***Schedule B, from ner Constr. Co., 731 N. 19 Ave., Phoenix*** edule C, from Wallace & Wallace, S. 19 ., Phoenix, each under **$100,000.**

California—IMPROVEMENTS—U. S. Eng., -8 St., Sacramento, imprvs., bulk gas rage facilities, Spec. 589, Kings Co., from kwart Co., Forum Bldg., Sacramento, un- **$50,000.**

†Pennsylvania — IMPROVEMENTS — U. S. Eng., 925 New Federal Bldg., Pittsburgh, prvs., paving, draining, clearing, draining, Kean Co., from Larkin Co., Camp Hill acadam 90 days), **$524,602;** from F. B. ssler, Northumberland (macadam 150 days concrete 150 days), **$577,167** and **$538,856** pectively***from M. Bennett & Sons, Inna (concrete 90 days), **$592,388.** CD 2/10 ENR 2/18.

†Texas—FIRE ALARM SYSTEM—U. S. g., 25 St. and Avenue F, Galveston, June 8, tomatic fire alarm sys., Sol. 359-43-C142, rris Co., from American District Telegraph ., U. S. National Bank Bldg., Galveston, der **$50,000.**

†Texas—IMPROVEMENTS—U. S. Eng., 25 and Avenue F, Galveston, June 9, imprvs., lgs., water, sewer, gas lines, paving, drain- e, electric lines, etc., from H. B. Zachry . P. O. Box 596, San Antonio **$100,000- 00,000;** imprvs., from Noser Constr. Co., Allen, **$100,000-$500,000,** both Solic. 359-43- 40, Cameron Co. (**Correction**—low bidder in st portion of item). CD 6/14—ENR 6/17, der Public Bldgs.

★ **†Texas**—IMPROVEMENTS—U. S. Eng., 416 Wright Bldg., Tulsa, Okla., June 14, imprvs., t 1, culverts, grading, base course, bldgs., otor pool, etc., Sol. 957-Neg-43-303, Dallam ., from J. W. Bateson, Allen Bldg., Dallas, 000,000-$5,000,000. CD 6/2—ENR 6/10.

†Texas—IMPROVEMENTS—U. S. Eng., 25 and Avenue F, Galveston, imprvs., Sol. 9-43-C145, Hidalgo Co., from Harry Hedges, 10 Runnels St., Houston.

†Texas—IMPROVEMENTS—U. S. Eng., 25 and Avenue F, Galveston, imprvs., clear- g, grubbing, concrete paving, Solic. 359-43-C- 4, Victoria Co., from Geo. Kies Co., 1700 ase Rd., Austin, **$100,000-$500,000.** CD 6/14 —ENR 6/17.

ONTRACTS AWARDED

†Arizona—GASOLINE FUELING SYSTEM— S. Eng., 751 S. Figueroa St., Los Angeles 14, alif., gasoline fueling sys., Pima Co., to S. H. lledge, Route L, Box 5, Coachella, Calif., nder **$30,000.**

†California—FENCING—U. S. Eng., 74 New ontgomery St., San Francisco, fencing, San rancisco Co., to Jere Strizek, 320 Judah St., n Francisco. Awarded 6/15.

†California—IMPROVEMENTS—U. S. Eng., 1 S. Figueroa St., Los Angeles, Zone 14, mprvs., No. 1340, Riverside Co., to L. P. cherer & T. C. Prichard, 208½ Orange St., edlands, under **$50,000.**

†California—STREET LIGHTING SYSTEM —U. S. Eng., 74 New Montgomery St., San rancisco, street lighting sys., San Francisco o., to Scott-Buttner Electric Co., 534-20th ., Oakland. Awarded 6/18.

Conn., Hartford—SILO—G. Fox & Co., Inc., 960-980 Main St., masonry silo, incl. ash handling equip., Main St., to SNE Cont. Co., Inc., 242 Trumbull St. Est. **$50,000.** E. E. Ashley, c/o owner, archt.

†Florida—FIRE ALARM SYSTEM—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, fire alarm sys., Neg-Jax-43-876, Clay Co., to American District Telegraph Co., Western Union Bldg., Jacksonville, under **$50,000.** Awarded 6/9.

†Florida — GRASSING — U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, grassing, Neg-Jax-43-1018, Lee Co., to Mike L. Blank Nursery, Delray Beach, under **$100,000.** Awarded 6/14.

†Florida—GRASSING—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, grassing, Neg-Jax-43-970, Palm Beach Co., to Holding Farms Co., Inc., Dania. Est. under **$100,000.** Awarded 6/10.

†Florida—IMPROVEMENTS—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, imprvs., Neg-Jax-43-895, Dade Co., to James Sotille, Sr., Homestead, under **$500,000.** Awarded 5/26.

†Florida—IMPROVEMENTS—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, imprvs., Neg-Jax-43-1916, Duval Co., to Hillyer & Lovan, 111 W. Ashley St., Jacksonville, under **$50,000.** Awarded 6/12.

†Florida — IMPROVEMENTS — U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, imprvs., grading, draining, stabilization, paving, grassing shoulders, underground ducts, mucking, Lee Co., to Cone & Manly, Caesar St. and Cumberland Rd., Tampa, under **$500,000.** Awarded 6/16.

†Florida—PARKING APRONS—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, parking aprons, to Cleary Brothers Constr. Co., Georgia Ave., West Palm Beach, est. under **$500,000; paving parking aprons, to H. E.** Wolf Constr. Co., St. Augustine, under **$500,000,** both Neg-Jax-43-1036, Palm Beach Co. Awarded 6/17.

†Florida—RAMP, etc.—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, ramp, bldgs., Neg-Jax-43-948, Orange Co., to Stevens & Sipple, 1920 N. Orange Ave., Orlando, under **$50,000.** Awarded 6/4.

†Florida—SPRIGGING and SEEDING—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, sprigging, seeding, Neg-Jax-43-1013, Volusia Co., to Robert D. Yancey, E. 22 St., Jacksonville, Zone 6, under **$50,000.** Awarded 6/14.

★ **†Fla., Bunnell** — IMPROVEMENTS — Civil Aeronautics Adm., Municipal Airport, Atlanta, Ga., imprvs., Sec. 2, to McDougald Constr. Co., Northside Dr. N.W., Atlanta, Ga., **$817,428;** Sect. 1, to Rutland Constr. Co., Decatur, Ga., **$474,188.** CD 6/4.

†Georgia—IMPROVEMENTS—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, imprvs,. Neg-Jax-43-984, Lowndes Co., to Coffee Constr. Co., Eastman, under **$100,000.** Awarded 6/10.

★ **†Idaho**—IMPROVEMENTS—U. S. Eng., Pittock Blk., Portland, Ore., imprvs. Elmore Co., to J. A. Terteling & Sons, Robert Noble Bldg., Boise, over **$1,000,000.**

†Idaho—SPUR TRACK—U. S. Eng., Pittock Blk., Portland, Ore., spur track, Contr. 698-Eng-3442, Ada Co., to Geo. H. Wells Co., Hermiston, Ore., under **$50,000.**

†Indiana—CONSTRUCTION—U. S. Eng., 612 Federal Bldg., Louisville, Ky., concrete construction, Contr. 559-Eng-6970 Vigo Co., to J. R. Griffith Co., Racine, Wis., **$100,000-$500,000.**

†Iowa—FENCING—U. S. Eng., 1709 Jackson St., Omaha, Neb., fencing, Woodbury Co., to McLein-Wolff Co., Yankton, S. D. Est. under **$50,000.**

†Kansas—IMPROVEMENTS—U. S. Eng., 10 E. 17 St., Kansas City, Mo., imprvs., to Reno Const. Co., Merriam, est. under **$200,000;** apron floodlights, to Jones Bros. Const. Co., Joplin, est. under **$200,000,** both Montgomery Co.

†Kansas—IMPROVEMENTS—U. S. Eng., 10 E. 17 St., Kansas City, Mo., imprvs., bldgs., Saline Co., to MacDonald Constr. Co., and J. J. Gilmore, 3829 W. Pine St., St. Louis, Mo. Est. under **$50,000.**

†Kan., Olathe—SPRINKLER SYSTEM—**Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., installing suprotex-deluge sprinkler sys., in 4 hangar bldgs., Naval Air Sta., NOY 6336, to Grinnell Sprinkler Co., 21 W. 10 St., Kansas City, Mo., $76,639.**

★ **†Kentucky**—IMPROVEMENTS—U. S. Eng., 612 Federal Bldg., Louisville, imprvs., **Jefferson Co., to Western Contg. Corp., 2100 E. 4 St., Sioux City, Ia., over $1,000,000.** CD 6/3—ENR 6/10.

†Maine—GRADING, etc.—U. S. Eng., 31 St. James Ave., Boston, Mass., grading, turfing, No. 175-43-Neg-350, Penobscot Co., to T. W. Cunningham, Inc., 15 State St., Bangor.

†Massachusetts—WHARF—U. S. Eng., 31 St. James Ave., Boston, timber wharf, No. 175-43-Neg-342, Barnstable Co., to Coleman Brothers Corp., 245 State St., Boston. Est. under **$50,000.** CD 6/2—ENR 6/10.

†Mississippi—IMPROVEMENTS—U. S. Eng., Grant St., west of Westwood St., Mobile, Ala., imprvs., bldgs., incl. outside utilities, etc., Inv. 569-43-772, Harrison Co., to Perry Constr. Co., Philadelphia. Est. **$50,000.** Bid **6/3,** awarded 6/10.

†Nebraska — FENCING — U. S. Eng., 1709 Jackson St., Omaha, fencing, Thayer Co., to Korshoj Const. Co., Blair. Est. under **$50,000.**

†New Mexico—GASOLINE STORAGE FACILITIES—U. S. Eng., Albuquerque, addnl. gasoline storage facilities, Chaves Co., to De-Luca & Sons, 1145 Filbert St., San Francisco, Calif., under **$50,000.**

†New Mexico —IMPROVEMENTS — U. S Eng., Albuquerque, imprvs., addnl. roads, parking areas, Chaves Co., to Allison, Armstrong & Thygesen, Roswell, under **$200,000.** Awarded 6/18.

†New Mexico — IMPROVEMENTS — U. S. Eng., Albuquerque, imprvs., bldgs., housing facilities, Chaves Co., to C. H. Leavell, 109 N. Stanton St., El Paso, Tex., under **$200,000.** Awarded 6/2.

†New Mexico — IMPROVEMENTS — U. S. Eng., Albuquerque, imprvs., storage facilities, Curry Co., to Lembke Constr. Co., 324 N. 3rd St., Albuquerque, under **$50,000.** Awarded 6/19.

†New Mexico — IMPROVEMENTS — U. S. Eng., Albuquerque, imprvs., turning pad, Lea Co., to Hoppock & Wagner, Waco, Tex. Est. under **$500,000.**

†New Mexico — IMPROVEMENTS — U. S Eng., Albuquerque, imprvs., roads, sidewalks, parkway, Otero Co., to H. Thygesen, Albuquerque, under **$200,000.** Awarded 6/15.

†N. Y., New York—DOCK REPAIRS, etc.—At office J. McNeely, dist. engr. Pub. Bldgs. Admin., 731 Custom House, dock and ferry rack repairs, U. S. Barge Office, to General Contr. & Engr. Co., 40 Rector St., **$29,960. FWA.** Bids 5/28. CD 5/13—ENR 5/20.

†New York—IMPROVEMENTS—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., imprvs., No. 43-240, Suffolk Co., to Eastern Constr. Corp., 98 Lyon St., New Haven, Conn. Est. **$50,000-$100,000.** CD 6/8—ENR 6/10.

†North Carolina—IMPROVEMENTS—U. S. Eng., 308 Customhouse, Wilmington, imprvs., bldgs., Forsyth Co., to Southeastern Constr. Co., 208 W. Second St., Charlotte, **$100,000-$500,000.** Awarded 6/12.

†North Carolina—TRAINING AREA—U. S. Eng., 308 Customhouse, Wilmington, constructing training area, Contr. No. 982-Eng-1848, Cumberland Co., to J. R. Young, General Contractor, Fayetteville, under **$50,000.**

★ **†North Carolina**—RAILROAD IMPROVEMENTS—Atlantc & East Carolina Ry. Co., H. P. Edwards, pres. and genl. mgr., New Bern, railroad imprvs., incl. roadbed ballasting, new cross ties, drainage, strengthening bridges and other structures, heavier rails between Kinston and Morehead City, to T. A. Loving & Co., Bank of Wayne Bldg., Goldsboro. Est. **$600,000.** Navy Dpt. will finance.

O., Cleveland—GAS HOLDERS—Standard Oil Co. of Ohio, H. West, Midland Bldg., 2 steel plate gas holders, to Hammond Iron Works, Hammond, Ind. Est. **$40,000.**

†Oklahoma — FIRE ALARM SYSTEM — U. S. Eng., 415 Wright Bldg., Tulsa, installing fire alarm sys., Contr. 957-Eng-1912, Okmulgee Co., to American District Telegraph Co. of Oklahoma, 400 N. Bway., Oklahoma City, under **$50,000.**

†Oklahoma—IMPROVEMENTS—U. S. Eng., 231 W. Main St., Denison, Tex., imprvs., utilities, Carter Co., to Texas Bitulithic Co., 111 Commerce St., Dallas, Tex., **$100,000-$500,000.**

★ **†Oklahoma** — IMPROVEMENTS — U. S. Eng., 416 Wright Bldg., Tulsa, imprvs., Oklahoma Co., to Chas. M. Dunning Contr. Co., 420½ N. Hudson St., Oklahoma City. Est. over **$2,000,000.** CD 6/17.

†Rhode Island—IMPROVEMENTS—U. S. Eng., 819 Industrial Trust Bldg., Providence, imprvs., No. 43-254, Kent Co., to M. A. Gammino Constr. Co., 728 Valley St., Providence. Est. **$50,000-$100,000.** Bids 6/7.

†South Carolina—IMPROVEMENTS—U. S. Eng., 33 Customhouse, Charleston, imprvs., concrete roads and asphalt on top surface, Richland Co., to Southern Constr. Co., Barnwell. Est. less than $150,000. Awarded 6/16.

†South Dakota—FENCING—U. S. Eng., 1709 Jackson St., Omaha, Neb., fencing, Davison Co., to H. W. Cable, Mitchell. Est. under **$50,000.**

†South Dakota—PARKING APRON—U. S. Eng., 1709 Jackson St., Omaha, Neb., parking apron, Contr. 643-Eng-4147, Hughes Co., to McCree & Co., 918 New York Bldg., St. Paul, Minn., and Jay W. Craig Co., 1814 N. E. California St., Minneapolis, Minn., **$100,000-$500,000.**

†Texas—GUNNERY RANGE—U. S. Eng., Alburquerque, N. M., gunnery range, Constr. 911-Eng-2001, Ward Co., to Uvalde Constr. Co., Sante Fe Bldg., Dallas, under **$50,000.**

†Texas—IMPROVEMENTS—U. S. Eng., Fort Sam Houston, imprvs., Bexar Co., to Briggs & Killian, Sunset Rd., San Antonio, over **$50,000.**

†Texas—IMPROVEMENTS—U. S. Eng., 25 St. and Avenue F, Galveston, imprvs., Sol. 359-43-C140, Part, Cameron Co., to Noser Constr. Co., McAllen, **$100,000-$500,000.**

UNCLASSIFIED. (Contracts Awarded, Cont'd.)

†Texas—IMPROVEMENTS—U. S. Eng., 231 W. Main St. Denison, imprvs., storage and facilities, Dallas Co., to James I. Barnes Constr. Co., 131 N. Ludlow St., Dayton, O., under **$50,000.**

†Texas—IMPROVEMENTS—U. S. Eng., 231 W. Main St., Denison, imprvs., grounds development, turfing, etc., Smith Co., to McKinney Constr. Co., Marshall, under **$50,000.**

★**†Texas — IMPROVEMENTS — U. S. Eng., 25 St. and Avenue F, Galveston, imprvs.,** Sol. 359-43-C134, **Victoria Co., to Texas Bitulithic Co.,** P. O. Box 5297, **Dallas, $500,000-$1,000,000.** CD 6/17—ENR 6/24.

†Texas—RAILWAY SPUR TRACKS—U. S. Eng., 25 St. and Avenue F, Galveston, railway spur tracks, Harris Co., to Wm. H. Smith Constr. Co., 301 Greig St., Houston, under **$50,000.**

†Texas — STORAGE FACILITIES — U. S. Eng., 231 W. Main St., Denison, storage facilities, Dallas Co., to Geo. P. O'Rourke Constr. Co., 2019½ Jackson St., Dallas, under **$50,000.**

†Texas—TELEPHONE FACILITIES—U. S. Eng., Fort Sam Houston, addnl. underground and overhead telephone facilities, etc., Bell Co., to Taylor Constr. Co., Taylor, under **$50,000.**

†Washington—CONSTRUCTION—U. S. Eng., 800 3 Ave., Seattle, addnl. unspecified construction, Clallam Co., to Sound Construction & Engineering Co., Northern Life Tower, Seattle, under **$50,000.**

†Washington—CONSTRUCTION—U. S. Eng., 800 3 Ave., Seattle, construction, King Co., to Johnson, Goetz & Brennan, 208 E. Pacific St., Seattle, under **$50,000.**

†Washington — IMPROVEMENTS — U. S. Eng., 800 3 Ave., Seattle, imprvs., King Co., to Sound Constr. & Engineering Co., Northern Life Tower, Seattle, under **$50,000.**

†Washington—SEEDING, etc.—U. S. Eng., 800 3 Ave., Seattle, seeding, fertilizing, Kitsap and Snohomish Counties, to Foster & Kleiser Co., 5 Ave. N., and Roy St., Seattle, under **$50,000.**

†Washington—SEEDING—U. S. Eng., 800 3 Ave., Seattle, seeding, Pierce Co., to Ziegler Lumber Co., Olympia, under **$50,000.**

LATIN AMERICA

B. W. I., Trinidad—McColl Frontenac Oil Co., Ltd., Notre Dame St. E., Montreal, Que., plans drilling 6 new shallow wells and 3 new deep wells. $50,000 plus. Engineer, c/o Antilles Petroleum, Ltd., Trinidad.

Mexico and **Texas**—Dept. of Federal Public Works & Communications, Mexico City, Mexico, plans concrete and heavy timber vehicle and pedestrian bridge over Rio Grande River, between Reynosa, Mexico and McAllen, Tex. $100,000. Owners have approved construction plans and financing. Architect, c/o Dept. of Federal Archts. & Engrs., Mexico City, Mex.

Mexico, Mexico City—Mexico City Govt., Palacio Municipal, plans boulevard to connect suburbs of Coyoacan and Villa Obregon. $310,000.

Mexico, Mexico City—Dpt. Federal Public Works & Communications, Mexico City, new Federal District Palace bldg., force account and sub-contracts, approx. $1,200,000. Est. $1,450,000. Architect, c/o Federal Dpt. Pub. Bldgs. Planning, Mexico City. CD 6/15—ENR 6/17.

PUBLIC BUILDINGS

PROPOSED WORK

†Alabama—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, Ga., plans by E. C. Miller, Tuskegee, and McKissick & McKissick Co., assoc. archts, Morris Memorial Bldg., Nashville, Tenn., dwelling units, Ala. 1208 and 1209. $350,000. CD 6/7—ENR 6/10.

Ala., Phenix City—$150,000 bond issue underwritten for hospital. $250,000. Will ask federal assistance. Housing Architects of Columbus, 11 W. 12 St., Columbus, Ga., archts.

†Calif., Biever—Pub. Housing Auth., NHA, 785 Market St., San Francisco, 36 dormitory units, Calif. 4725 and 20 family units, Calif. 4726.

Calif., Napa—Napa Co., Court House, plans by Russell Guerne De Lappe, 564 Market St., San Francisco. 300 unit farm labor camp.

†Colo., Gateway—Pub. Housing Auth., NHA, Dierks Bldg., 1006 Grand Ave., Kansas City, Mo., 13 family trailer units, Colo. 5101.

†Connecticut—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., plans by Delbert K. Perry, 17 Court St., New Britain, infirmary bldg.

†Conn., Hartford—City, Bd. Contr. & Supply, T. F. Foley, bldg. superv., 550 Main St., plans by Ebbets & Frid, 15 Lewis St., brick, steel single wing isolation hospital, Conn. 6-104. **FWA.**

†D. C., Wash.—Pub. Housing Auth., NHA, Temporary Bldg. 2, 19 and D Sts. N.W., plans by American Houses, Inc., (prefabricators), 570 Lexington Ave., New York, N. Y., 60 unit demountable housing, Naylor Rd., D.C. 49064. CD 6/16.

†Ga., Wellston—Pub. Bldgs. Admin., 18 and F Sts. N.W., Wash., D. C., school bldg. **FWA.**

★**†Illinois**—Ingalls-Shepard Div. Wyman-Gordon, 146 and Wood Sts., Harvey, plans by Schmidt, Garden & Erikson, 104 S. Michigan Ave., Chicago, 1 story, brick, rein.-con. plant. Over $1,000,000. Federally financed.

†Kansas—Pub. Housing Auth., NHA, Dierks Bldg., 1006 Grand Ave., Kansas City, Mo., postponed bids to have been opened June 14, administration and child care bldg., Project 14072. Hare & Hare, engrs.-archts. and Marshall & Brown, assoc. archts-engrs., all at 114 W. 10 St., Kansas City, Mo. CD 5/25—ENR 5/27.

†Kan., Dodge City—Pub. Housing Auth., NHA, Dierks Bldg., 1006 Grand Ave., Kansas City, Mo., 150 unit family trailer housing, Kan. 14133.

†Louisiana—Pub. Housing Auth., NHA, 1205 Electric Bldg., 7 and Taylor Sts., Fort Worth, Tex., plans by Quinn & Dunn, 512 Sinclair Bldg., Fort Worth, Tex., trailer housing, La. 16094. CD 6/8—ENR 6/10.

†Md., Leonardtown—Pub. Housing Auth., NHA, Temporary Bldg. 2, 19 and D Sts. N.W., Wash., D. C., 144 unit dormitory housing, Md. 18261; 72 unit dormitory housing, Md. 18262; 120 unit family housing, Md. 18263; 200 unit family housing, Md. 18264; 30 unit family housing, Md. 18265.

†Massachusetts—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., bldgs. expansion, Bristol Co. J. R. Worcester & Co., 79 Milk St., Boston, engrs.

†Montana—U. S. Eng., 800 3 Ave., Seattle, Wash., bldgs., bldg. addns., etc. Under $200.000.

†Nebraska—Pub. Housing Auth., NHA, Dierks Bldg., 1006 Grand Ave., Kansas City, Mo., plans nearing completion by Marshall & Brown, engrs.-archts., 114 W. 10 St., Kansas City, Mo., trailer housing, Neb. 25063. CD 5/19—ENR 5/27.

†New Jersey—Pub. Housing Auth., NHA, 270 Bway., New York, 7, N. Y., plans by Micklewright & Mountford, 219 E. Hanover St., Trenton, housing, NJ 5-3. $300,000. CD 6/5—ENR 6/10.

†N. J., Elizabeth—Elizabeth General Hospital, E. Jersey St., plans by A. A. Kaufman, 259 N. Broad St., nurses' training school addn. $140,000. **FWA.** CD 6/9—ENR 6/17.

†North Carolina—Drexel Furniture Co., Morganton, expanding plant facilities, Burke Co. $175,000. Defense Plant Corp. will finance.

★**†Ohio**—Canton Drop Forging & Mfg. Co., 207 12 St. S.E., Canton, plans by McGeorge & Hargett, engrs. and archts., 9400 Quincy Ave., Cleveland, rehabilitating factory, bldg. addns., alterations, Stark Co. Total est. $4,000,000. Defense Plant Corp. will finance. CD 4/15—ENR 4/22.

†O., Akron—Akron City Hospital, hospital bldg. $410,000. **FWA.** Good & Wagner, 1st Central Tower Bldg., archts. A. E. Rowe, 1900 Euclid Ave., Cleveland, structural engr. CD 6/9—ENR 6/17.

†O., Akron—St. Thomas Hospital, Sister Eleanor in charge, 414 N. Main St., hospital addn. $225,000. **FWA.** Kraus & Helmcamp, 1st Central Tower Bldg., archts. A. E. Rowe, 1900 Euclid Ave., Cleveland, structural engr. CD 6/9—ENR 6/17, under Commercial Bldgs.

†Ore., Astoria—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, Wash., dormitory housing, Ore. 35262, building conversion program.

†Ore., Sutherlin—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, Wash., 100 unit family housing, Ore. 35263.

†Rhode Island—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., bids soon sewage disposal plant and sewerage sys., for housing, RI 37050. $85,000. Charles A. Maguire & Associates, 1515 Turks Head Bldg., Providence, engrs.

†Texas—Pub. Housing Auth., NHA, 1205 Electric Bldg., 7 and Taylor Sts., Fort Worth, 2 or more stores and storage bldgs.

†Tex., Amarillo—Home Owners Loan Corp., Cotton Exchange Bldg., Dallas, plans by J. Roy Smith, 310 Blackburn Bldg., converting existing bldgs. into apartments. $150,000.

†Utah—Pub. Housing Auth., NHA, Dierks Bldg., 1006 Grand Ave., Kansas City, Mo., plans by Five Associates, engr.-archt., Belvidere Hotel, 29 E. State St., Salt Lake City, family housing, Proj. 42154. CD 5/19—ENR 5/27.

†Utah—U. S. Eng., 32 Exchange Pl., Salt Lake City, bldg., Salt Lake Co. Under $50,000.

★**†Virginia**—U. S. Eng., Fort Norfolk, Norfolk hospital, Chesterfield Co. Over $1,000,000.

†Va., Bowling Green — Federal Works Agency, 601 State Planters Bank Bldg., Richmond, recreation center addn., Bowling Green, also center at New Baltimore, about 2 mi. south of here, Project Va 44-327. $58,450.

†Washington—Seattle Housing Auth., 825 Yesler Way, Seattle, plans by Bain & Holmes, Smith Tower, Seattle, dormitories, for NHA. $150,000. CD 6/9—ENR 6/17.

†Washington — U. S. Eng. 800 3 **Seattle, ventilating sys. alterations, N tion 591, school bldg. and training audit No. 593, altering hotel basement, No King Co.**

†Washington—U. S. Eng., 800 3 **Seattle, concrete work, carpentry, shee miscellaneous metal work,** interior ele **work, for bldg., Negotiation** 597, **Jefferso**

†Washington—U. S. Eng., 800 3 Seattle, heating plant, warehouse, Negot 592, Pierce Co.

†Washington—U. S. Eng., 800 3 Seattle, school bldgs., Negotiation 587, homish Co.

†W. Va., Morgantown—Pub. Bldgs. Ad 18 and F Sts. N.W., Wash. 25, D. C., M galia County Health Center. **FWA.**

Alta., Calgary — Dominion Govt., Ot Ont., oil reclaiming unit plant, Dpt. M. Ottawa, Ont. engrs.

BIDS ASKED

Bids Asked After June 21

†New York—Pub. Housing Auth., NHA Perry St., Buffalo, commercial bldg., 30038. Plans deposit $25.

Bids Asked After June 24

†New York—Pub. Housing Auth., NHA Bway., New York, Zone 7, sidewalks for h ing, Project N.Y. 30033. Plans deposit Extended date. Hudson & Fronzack, 802 Bldg., Buffalo, engrs. CD 6/3—ENR 6/1

Bids Asked After June 25

†New Jersey—Pub. Housing Auth., N 270 Bway., New York, 7, N. Y., dormito N.J. 28160; temporary family dwell N.J. 28161. Plans deposit $50. Van Nuy Gruzen, 921 Bergan Ave., Jersey City, ar CD 6/9—ENR 6/17.

Bids Asked June 28

†Connecticut—Pub. Housing Auth., NHA School St., Boston, Mass., sewer and w sys. for housing, Conn. 6135. Plans dep $50 first set, $10 for each addnl. set.

†Pennsylvania—Pub. Housing Auth., N 270 Bway., New York, 7, N. Y., comm cial, administration, maintenance bldgs. garage, for Projects Pa. 36011 and Pa. 36 Extended date. Plans deposit $25. E. H. W ham, 315 S. 15 St., Phila., archts. CD 6/ ENR 6/10 under BA.

†Vermont—Pub. Housing Auth., NHA, School St., Boston, Mass., bldg., fire pro tion facilities, Vt. 43013. Plans deposit first set and $10 each addnl. set.

Bids Asked June 29

†Pennsylvania—Pub. Housing Auth., N 270 Bway., New York, 7, N. Y., road pairs for Project Pa. 36263. Plans deposit Extended date. CD 5/27—ENR 6/3.

Bids Asked After June 30

†Pennsylvania—Pub. Housing Auth., N 270 Bway., New York, 7, N. Y., dor tory housing, Pa. 36432, temporary fam dwellings, Pa. 36433. Plans deposit $50. tended date. Gannett, Fleming & Eastm and Joseph Burke Assoc., Magee Bldg., Pi burgh, archts. CD 6/8—ENR 6/10.

Bids Asked July 1

†Kentucky—Pub. Housing Auth., NHA, 2 E. 9 St., Cleveland, O., temporary fam dwellings, Ky. 15102. Plans deposit $50. W son, Bell & Watkins, 145 E. High St., Lexi ton, archts. CD 5/12—ENR 5/6.

†O., Medina— Medina Community Hospit Inc., Medina, hospital addns., alteratio $131,000. **FWA.** Garfield, Harris, Robins & Schafer, 915 National City Bldg., Clevela archts. CD 6/9—ENR 6/12.

Bids Asked After July 1

†N. J., Long Branch—Pub. Bldgs. Adm 18 and F Sts. N.W., Wash., 25, D. C., hospi addn., N.J. 28123. $126,000. **FWA.** Epp & Kahns, 15 Washington St., Newark, arch CD 6/18.

Bids Asked About July 2

†Nebraska—Pub. Housing Auth., NHA, 10 Grand Ave., Kansas City, Mo., dwellings a community bldg. Neb. 25068. L. A. Daley, 5 Insurance Bldg., Omaha, engr.-archt. CD 6 —ENR 6/17.

Bids Asked July 2

†New Jersey—Pub. Housing Auth., NH 270 Bway., New York, 7, N. Y., civic grou incl. community bldg., child service cent and commercial bldg. for housing, N.J. 2807 B. Sumner Gruzen-H. A. Kelly, 921 Berg Ave., Jersey City, engrs.-archts. Plans deposit $50; adv. ENR 6/24. CD 6/6—EN 5/3.

†South Carolina—Pub. Housing Auth., NH Georgia Savings Bank Bldg., Peachtree an Broad Sts., Atlanta, Ga., family dwellin units, SC 38078. $100,000-$150,000. Pla deposit $50. J. B. Urquhart, Palmetto Bldg Columbia, archt. CD 6/14—ENR 6/17.

†Texas—Pub. Housing Auth., NHA, 12 Electric Bldg., Fort Worth, family dwellin units, Tex. 41576. Plans deposit $50. Broc Anderson & Hardy, Jones Bldg., Corpu Christi, archts. CD 5/27—ENR 6/3.

Bids Asked July 3

†Ohio—Pub. Housing Auth., NHA, 2073 9 St., Cleveland, temporary family dwelling Ohio 33252. Plans deposit $50. Dayton Hou

LIC BLDGS. (Bids Asked, Cont'd.)

Architects, 3rd Natl. Bank Bldg., Dayton. 6/10—ENR 6/17.

Blackstone—Pub. Housing Auth., Temporary Bldg. 2, 19 and D Sts. N.W., D. C., 108 unit dormitory housing. 44294. Wiley & Wilson, Lynchburg, engrs.-ts. CD 5/25—ENR 5/27.

Bids Asked July 6

Md., **Aberdeen**—Pub. Housing Auth., NHA, porary Bldg. 2, 19 and D Sts. N.W., sh., D. C., 100 unit family dwellings, Md. and 140 unit family dwellings, Md. F. L. W. Moehle, 312 Professional Bldg., timore, archts. CD 5/25—ENR 5/27.

Ohio—Pub. Housing Auth., NHA, 2073 E. 9 Cleveland, temporary family dwellings. 33265. Plans deposit $50. Britsch & Mun- 1025 Nicholas Bldg., Toledo, archts. 6/10—ENR 6/17.

South Carolina—Pub. Housing Auth., NHA, rgia Savings Bank Bldg., Peachtree and ad Sts., Atlanta, Ga., family dwelling s, SC 38079. Over $100,000. Plans deit $50. A. E. Constantine, c/o Ladd Eng. Bonna Allen Bldg., Atlanta, Ga. CD —ENR 6/17.

Bids Asked July 7

Ohio—Pub. Housing Auth., NHA, 2073 E. St., Cleveland, temporary family dwellings, 33263. Plans deposit $50. Potter, Tyler Martin, 35 E. 7 St., Cincinnati, archts. CD —ENR 6/17.

Bids Asked July 8

Conn., **Bridgeport**—Bridgeport Hospital, Grant St. (selected bidders), hospital in., nurses' homes. **FWA.** Stevens, Curtis, son & Riley, 45 Newbury St., Boston, ss., archts.

Ohio—Pub. Housing Auth., NHA, 2073 E. St., Cleveland, permanent housing, Ohio 62. Plans deposit $50. Garfield, Harris, binson & Schafer, National City Bank Bldg., veland, archts. CD 6/10—ENR 6/17.

Bids Asked July 9

Md., **Annapolis**—Pub. Housing Auth., NHA, mporary Bldg. 2, 19 and D Sts. N.W., Wash., C., 50 unit family dwelling housing, MD-58. Wm. N. Denton, Jr., 1719 I St. N.W., ash., D. C., archts. Extended date. CD 5—ENR 5/27.

†Va., **Williamsburg**—Pub. Housing Auth., HA, Temporary Bldg. 2, 19 and D Sts. N.W., ash., D. C., 852 unit family dwellings, VA-279. Extended date. CD 5/25—ENR 5/27.

†Va., **Williamsburg**—Pub. Housing Auth., HA, Temporary Bldg. 2, 19 and D Sts. N.W., ash., D. C., 260 unit family dwellings, VA-235. Extended date. CD 6/3—ENR 6/10.

Bids Asked July 10

†**Kentucky**—Pub. Housing Auth., NHA, 2073 9 St., Cleveland, O., temporary family ellings, Ky 15107. Plans deposit $50. Meriwether, 236 E. Short St., Lexington, cht. CD 5/20—ENR 5/27.

†**Kentucky**—Pub. Housing Auth., NHA, 2073 9 St., Cleveland, O., dormitory housing, Ky. 106. Plans deposit $50. Wilson, Bell & atkins, 145 E. High St., Lexington, archts. 6/11—ENR 6/17.

†**Kentucky**—Pub. Housing Auth., NHA, 2073 9 St., Cleveland, O., temporary family ellings, Ky. 15105. Plans deposit $50. lson, Bell & Watkins, 145 E. High St., Lexton, archts. CD 6/11—ENR 6/17.

Bids Asked July 12

†**Ohio**—Pub. Housing Auth., NHA, 2073 E. St., Cleveland, temporary family dwellings, io 33264. Plans deposit $50. Associated using Architects, First Central Tower, ron, archts. CD 6/10—ENR 6/17.

Bids Asked July 13

†**Mo., St. Louis**—City, C. E. Ellaby, pres. Bd. b. Serv., 304 City Hall, Zone 3, altering Laclede Police Station, Laclede and Lefgwell Aves., to use as health center bldg., cket Mo. 23-257. $79,000. **FWA.** Plans posit $10. W. Crecelius, ch. engr., and A. burg, ch. archt., Bridges and Buildings t., 301 City Hall, Zone 3, engr. and archt.

Bids Asked July 14

†**South Carolina**—Medical Society of South rolina, Charleston, superstructure for 7 ry, bsmnt., hospital addn. **FWA.** S. nnaford & Sons, Dix Terminal Bldg., Cinnati, O., archts. CD 4/13—ENR 4/15.

Bids Asked July 17

†**Ohio—Pub.** Housing Auth., NHA, 2073 E. St., Cleveland, permanent housing, Ohio 261. Plans deposit $50. Garfield, Harris, binson & Schafer, National City Bank Bldg., eveland, archts. CD 6/10—ENR 6/17.

†**Pa., Allentown-Bethlehem**—Pub. Housing uth., NHA, 270 Bway., New York 7, N. Y., unit family dwellings, Pa. 36429. Lovee & Spellman, 102 W. Broad St., Bethlem, archts. CD 5/19—ENR 5/27.

Bids Asked About July 20

†**Nebraska** — Pub. Housing Auth., NHA, erks Bldg., 1006 Grand Ave., Kansas City, ., family housing, community bldg., Neb. 064. Davis & Wilson, 757 Stuart Bldg., Linln, engrs.-archts.

†**Nebraska** — Pub. Housing Auth., NHA, erks Bldg., 1006 Grand Ave., Kansas City, Mo., temporary family housing, dormitory housing, facility bldg., incl. cafeteria and community bldg., Neb. 25065-6. Davis & Wilson, 757 Stuart Bldg., Lincoln, engrs.-archts. CD 6/4—ENR 6/10.

†**Nebraska** — Pub. Housing Auth., NHA, Dierks Bldg., 1006 Grand Ave., Kansas City, Mo., dwellings, community bldg., Neb. 25067. Davis & Wilson, 757 Stuart Bldg., Lincoln, engrs.-archts. CD 6/4—ENR 6/10.

†**Nev., Tonopah**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, Calif., 40 unit family dwellings, Nev.-26150; 30 unit dormitory housing, Nev.-26151. CD 6/8—ENR 6/10.

†**South Carolina**—Pub. Bldgs., Admin., 18 and F Sts. N.W., Wash., D. C., hospital bldg., Beaufort Co. **FWA.** $200,000. H. S. Singley, 1508 Washington Ave., Columbia, archt. CD 6/15—ENR 6/17.

Bids Asked July 27

†**Ala., Tuskegee**—Veterans Admin., Vermont Ave., between H and I Sts. N.W., Wash., D. C., bldgs., incl. roads, walks, grading, drainage, etc. CD 5/18—ENR 5/20.

Bids Asked August 25

N. Y., Kings Park—Comr. Mental Hygiene, State Office Bldg., Albany, steam service tunnels, Veteran's Group, Kings Park State Hospital, Spec. 11612. $105,000. Plans deposit $15. Extended date. CD 5/18—ENR 5/20.

Bids Asked

†**Connecticut—Pub.** Housing Auth., NHA, 24 School St., Boston, Mass., sewage collection and disposal sys., Conn. 6082 and 6083. Over $25,000. Payne & Keefe, 231 State St., New London, archts.

†**Connecticut**—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., sewage disposal project, Conn. 6011 and 6014. Over $25,000. Payne & Keefe, 231 State St., New London, engrs.

†**Connecticut**—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I. (selected bidders), recreation bldg., No. 43-265, Hartford Co.

†**Louisiana**—U. S. Eng., 25 St. and Avenue F, Galveston, Tex., bldg., facilities, utilities, Sol. 359-43-C154, Orleans Parish Co.

†**Massachusetts**—U. S. Eng., 31 St. James Ave., Boston (selected list bidders), housing, No. 175-43-NEG 369, Essex Co.

†**Vermont**—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., community bldg., commercial facilities, lawns, planting, site imprvs., etc., Vt. 43014. Plans deposit $50 first set and $10 each addnl. set. Leland & Larsen, 814 Statler Bldg., Boston, Mass., archts.

†**Vermont**—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., 6 and 8 in. outfall sewer, 30 in. culvert, grading, clearing, for housing, Vt. 43012. Plans deposit $25 first set, $5 each addnl. set. Hayden, Harding & Buchanan, 662 Park Square Bldg., Boston, Mass., engrs.

LOW BIDDERS

†**Ala., Mobile—Pub.** Bldgs. Admin., North Interior Bldg., Wash., D. C., June 16, Ann Street School, Ala. 1146, from Edgell Const. Co., 451 Dexter Ave., **$198,500. FWA.** CD 5/20—ENR 5/27.

†**California—**U. S. Eng., 751 S. Figueroa St., Los Angeles, Zone 14, June 15, bldg., No. 240C, Orange Co., from Allison Homer, 103 E. Third St., Santa Ana, under **$100,000.**

†**California** — U. S. Maritime Comn., Financial Center Bldg., Oakland, June 16, 4 warehouses, Contra Costa Co., from Moore & Roberts, 693 Mission St., San Francisco. H. J. Kaiser Co. Eng. Dpt., Richmond Shipyard No. 4 and Financial Center Bldg., Oakland, engrs.

★†**Colorado—**Pub. Housing Auth., NHA, Dierks Bldg., 1006 Grand Ave., Kansas City, Mo., June 9, housing, Projects 5042, 5043 and 5100, from Johnson & Leck, 608 Foshay Tower, Minneapolis, Minn., **$657,800.** CD 6/2—ENR 4/29.

†**Kansas**—Pub. Housing Auth., NHA, Dierks Bldg., 1006 Grand Ave., Kansas City, Mo., June 14, high school, Kan. 14023-24, from Dondlinger & Son, 1206 E. Lincoln St., Wichita, **$218,200.** CD 5/25—ENR 5/27.

†**Maine**—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., June 17, sewage treatment plant, sewage treatment, piping, road work, grading, drains, sewers, Me. 17039, from Casper Ranger Constr. Co., 6 Newton St., Holyoke, Mass., **$32,000,** alt. **$800.** CD 6/10, under Sewers.

†**Ohio**—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, site imprv. for trailer housing, Project Ohio 33256, from Gangl Engr. Co., 93 N. Main St., Akron, **$57,000.** CD 4/20—ENR 4/22.

†**Texas**—Pub. Housing Auth., NHA, 1205 Electric Bldg., Fort Worth, June 18, family housing, Tex. 41577, and dormitory housing, Tex. 41578, from D. W. Steele Co., First National Bank Bldg., Houston, **$294,300.** CD 6/8—ENR 6/10.

†**Tex., Corpus Christi**—City, A. C. McCaughn, mayor and Nueces Co., J. D. Browning, judge, June 16, 1 story city-county hospital bldg., Morgan St., Tex. 41-230, from E. E. Harrison, Box 162, Base Bid 1 **$261,312.** Base Bid 2 **$267,243.** Brock, Roberts & Anderson, Jones Bldg., archts. Matthews & Kenan, Transit Tower, San Antonio, engrs. CD 6/2.

CONTRACTS AWARDED

†**Ala., Anniston**—Federal Works Agency, Old Post Office Bldg., Montgomery, hospital bldg., to A. Blair, 1st Natl. Bank Bldg., Montgomery, Ala., **$421,422.** Awarded 6/12. CD 6/14—ENR 6/17.

★†**California** — Riverside County Housing Auth., 3381 Kentucky Ave., Riverside, family dwelling units, Calif. 4687, for NHA, to Elder R. Morgan Co., 2300 Huntington Dr. San Marino, **$658,389.** Bids 6/15.

†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, bldg. alterations, addns., San Francisco Co., to Central California Constr. Co., 230 California St., San Francisco. Awarded 6/16.

†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, bldg. facilities, San Francisco Co., to Cahill Bros. & Ben C. Gerwick, 206 Sansome St., San Francisco. Awarded 6/16.

†**California**—U. S. Eng., 2109 8 St., Sacramento, electrical work for bldgs., Spec. 565, Fresno Co., to Collins Electrical Co., 708 E. Market St., Stockton. CD 6/15—ENR 6/17 under LB.

†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, hospital facilities, Central California, to Daley Bros., 789 El Camino Real, Burlingame. Awarded 6/14.

†**California**—U. S. Eng., 751 S. Figueroa St., Los Angeles, Zone 14, bldg. facilities, No. 1328, Orange Co., to Gorelnik Co., 3145 W. 8 St., Los Angeles, under **$200,000.** Awarded 6/9.

†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, bldg., San Francisco Co., to W. F. Lynn, 1037 Ashmount Ave., Oakland. Awarded 6/14.

†**California**—U. S. Eng., 1209 8 St., Sacramento, bldgs., etc., Spec. 576, Fresno Co., to Theodore G. Meyer, 735 Portola Dr., San Francisco, under **$50,000.**

†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, bldg., San Francisco Co., to O. C. Moroney, 1437 Drake Ave., Burlingame. Awarded 6/18.

†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, bldg., San Francisco Co., to G. W. Williams Co., 10 California Dr., Burlingame. Awarded 6/16.

★†**Calif., Van Nuys**—U. S. Eng., 751 Figueroa St., Los Angeles, Zone 14, bldgs., utilities at Army General Hospital, to J & B Constr. Co., 5572 Valley Blvd., Los Angeles. Est. **$4,000,000.**

†**Colorado**—U. S. Eng., 909-17 St., Denver, temporary frame bldg., utilities, Contr. 1728-Eng-330, El Paso Co., to A. A. Jones & E. B. Jones, Jr., 682 Wyndt St., Denver, **$100,000-$500,000.**

†**Connecticut**—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., bldg., New Haven Co., to City Lumber Co. of Bridgeport, Inc., 75 Third St., Bridgeport. Est. under **$50,000.**

★†**Florida**—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, test bldg., Neg-Jax-43-956, Dade Co., to Fred Howland, Inc., 1114 Postal Bldg., Miami, under **$1,000,000.** Awarded 6/11.

†**Florida**—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, bldg., etc. Neg-Jax-43-1008, Sarasota Co., to J. D. Ewell, Sarasota, under **$50,000.** Awarded 6/15.

Ill., Decatur—Decatur and Macon County Hospital Assn., 2 story, brick, rein.-con. hospital addn., remodeling, to J. L. Simmons Co., Citizens Bank Bldg., **$161,000.** Holabird & Root, 333 N. Michigan Ave., Chicago, archts.

†**Kansas**—U. S. Eng., 10 E. 17 St., Kansas City, Mo., addnl. bldgs., Shawnee Co., to George Rinner Const. Co., 4 and N. Lane Sts., Topeka. Est. under **$200,000.**

†**Kansas**—U. S. Eng., 10 E. 17 St., Kansas City, Mo., bldg. control tower, etc. Finney Co., to H. F. Higgins, 1400 Jersey St., Denver, Colo. Est. under **$100,000.**

†**Louisiana**—U. S. Eng., 25 St. and Avenue F, Galveston, Tex., bldg., Orleans Parish to L. F. Favret, 937 Gravier St., New Orleans.

†**Louisiana**—U. S. Eng., 25 St. and Avenue F, Galveston, Tex., recreational bldg., Inv. W-359-43-(N.O. Area) 15, East Baton Rouge Parish, to J. S. Murphy, 212 S. 14 St., Baton Rouge. Bids 6/10.

†**Maryland**—U. S. Eng., Standard Oil Bldg., Baltimore, bldgs., Harford Co., to Cummins Constr. Corp., 803 Cathedral St., Baltimore. Est. **$100,000-$500,000.** Van Rensalaer P. Saxe, 100 W. Monument St., Baltimore, archt. and consult. engr.

†**Massachusetts**—U. S. Eng., 31 St. James Ave., Boston, bldg. addn., alterations, No. 175-43-NEG 359, Middlesex Co., to Torrisi & Fichera, 125 Methuen St., Lawrence. Est. under **$50,000.** CD 6/15—ENR 6/17.

★†**Michigan**—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, O., temporary dwelling units, Mich. 20178, to B. W. Handler Constr. Co., 10 E. 13 St., Chicago, Ill., masonry dry wall construction, **$551,000.** Bids 5/22, awarded 6/11. CD 6/9—ENR 6/17 under LB.

PUBLIC BLDGS. (Contracts awarded, Cont'd.)

★**†Michigan** — Pub. Housing Auth., NHA, 2073 E. Ninth St., Cleveland, O., general contract for 300 unit housing, MI 20045, to Brown & Mathews, General Motors Bldg., **$804,000.** Hewlett, Luckenbach & H. Augustus O'Dell, 2317 Dime Bank Bldg., Detroit, archts. CD 4/28—ENR 5/6.

†Michigan—U. S. Eng., 700 Union Guardian Bldg., Detroit, warehouse bldg., Chippewa Co., to A. H. Proksch, Iron River, less than **$1,000,000.**

†Nebraska—U. S. Eng., 1709 Jackson St., Omaha, storage facilities, utilities, Contr. 643-Eng-4158, Buffalo Co., to Peter Kiewit Sons' Co. and Big Horn Constr. Co., 1024 Omaha Natl. Bank Bldg., Omaha, under **$50,000.**

†Nebraska—U. S. Eng., 1709 Jackson St., Omaha, cold storage facilities, Contr. 643-Eng-4153, Lancaster Co., to Olson-Assenmacher-Rokahr, 1815 Y St., Lincoln, **$50,000-$100,000.**

†New Mexico—Pub. Housing Auth., NHA, 1205 Electric Bldg., Fort Worth, Tex., dormitory housing, NM 29164, and family dwelling housing, NM 29165, to Murphy-Keith Building Co., P. O. Box 2267, Tucson, Ariz., **$210,500.** Bids 6/9, awarded 6/14. CD 6/3—ENR 5/27.

†New York—U. S. Eng., 120 Wall St., New York, temporary frame bldgs., Contr. No. 1097-Eng-4067, Rockland Co., to Rathgeb-Walsh, Inc., 36 Broad St., Port Chester, **$100,000-$500,000.**

†North Carolina—U. S. Eng., 308 Customhouse, Wilmington, N. C., bldg., Mecklenburg Co., to W. H. Hand & Son, Belmont, under **$50,000.** Bids 6/11.

†North Carolina—U. S. Eng., 308 Customhouse, Wilmington, addnl. bldgs., Buncombe Co., to W. H. Hand & Son, Belmont, less than **$200,000.** Awarded 6/18. CD 6/15.

†North Carolina—U. S. Eng., 308 Customhouse, Wilmington, addnl. bldgs., Durham Co., to P. S. West Construction Co., Statesville. Est. **$100,000.** Awarded 6/12.

†Ohio—U. S. Eng., Wright Field, Dayton, constructing radio installation and shop bldg., Contr. 1945-Eng-433, Montgomery Co., to Frank Messer & Sons, Inc., 2515 Burnet St., Cincinnati, **$50,000-$100,000.**

†Ohio—U. S. Eng., Wright Field, Dayton, temporary frame bldgs., Contr. 1945-Eng-432, Montgomery Co., to J. L. Simmons Co. Inc., 715 Union Title Bldg., Indianapolis, Ind., **$100,000-$500,000.**

†Ohio—U. S. Rubber Co., 1235 W. 6 St., Cleveland, plant alterations, Marion Co., to Hunkin-Conkey Constr. Co., 1740 E. 12 St., Cleveland. Est. **$150,000.** Federally financed.

†Pa., Fort Mifflin—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., barracks for enlisted workmen, NOY 6565, to Geo. H. Evans & Co., 1124 Fairmont Ave., Phila., **$250,951.**

†Rhode Island—U. S. Eng., 819 Industrial Trust Bldg., Providence, bldgs., No. 43-255, Washington Co. to Dimeo Constr. Co., 75 Westminster St., Providence. Est. **$50,000.** Bids 6/12.

★**†South Carolina**—Defense Plant Corp., 811 Vermont Ave. N. W., Wash., plant, Dorchester Co., to Daniels Constr. Co., Greenville, **$2,750,000.** Awarded 6/17. CD 6/15—ENR 6/17.

†South Carolina—Home Owners Loan Corp., 114 Marietta St., Atlanta, Ga., apartments, to Morris Constr. Co., Greenville, **$268,570.** CD 5/26—ENR 6/3.

†South Carolina—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, Ga., family dwelling units, SC 38-075, to A. Farnell Blair, Decatur, Ga. Est. **$375,114,** Bids 4/12. Awarded 6/18. CD 3/25—ENR 4/1.

†South Carolina—Columbia City Housing Auth., 1505 Garden Plaza, Columbia, paving, grading, general arrangement roads and streets, walks, etc., for housing, SC 38011, for NHA, to M. B. Kahn Constr. Co., 714 Lady St., Columbia. Est. **$37,175.** Bids 6/15, awarded 6/15. CD 6/9.

†Texas—U. S. Eng., Fort Sam Houston, bldg., Kinney Co., to W. J. Aldrich, 414 Insurance Bldg., San Antonio, under **$50,000.**

†Texas—U. S. Eng., 25 St. and Avenue F, Galveston, storage facilities, temporary frame bldgs., Contr. 359-Eng-5530, Travis Co., to L. L. McCandless, 1809 Riverview Rd., Austin, under **$50,000.**

†Texas—U. S. Eng., Fort Sam Houston, addnl. frame type bldgs., Bexar Co., to Nunnelly & Phillips, Builders Exch. Bldg., San Antonio, **$50,000-$100,000.**

★**†Texas**—U. S. Eng., Fort Sam Houston, general contract housing, McCulloch Co., to Charles Oehler, 5007 Broadway St., Galveston, **$1,000,000-$5,000,000.**

†Texas—U. S. Eng., Albuquerque, N. M., addnl. bldg., facilities, Lubbock Co., to J. C. Valvin, c/o General Del., Big Spring, under **$50,000.**

†Texas—U. S. Eng., Albuquerque, N. M., cooling and cold storage facilities, Presidio Co. to Suggs Constr. Co., c/o U. S. Army Camp, Big Spring, and Abilene, under **$50,000.**

†Tex., Dallas—Pub. Bldgs., Admin., 18 and F Sts. N. W., Wash., D. C, U S Terminal Annex, alterations, addns., etc., to Samuel Johnson & Co., 1108 W. 9 St., Dallas, **$49,697. FWA.** Bids 6/11. CD 5/27—ENR 6/3.

†Tex., Fort Worth—Consolidated Vultee Airplane Mfg. Plant, 3 Grants Lane, plant exten., to Rob. E. McKee, 1817 Texas St., El Paso. **$350,000.** Awarded 6/17. Defense Plant Corp. will finance.

★**†Va., Arlington**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., facilities for Marine Corps-Women's Reserve, NOY 6188, to Jeffress-Dyer Inc., 1741 K St. N.W., Wash., D. C., **$549,254.**

†Va., Portsmouth — Pub. Housing Auth., NHA, Temporary Bldg. 2, 19 and D Sts. N. W., Wash., D. C. Schools 1 and 2, Alexander Park, Va. 44-183, to Vignola & Giannetti, Inc., 231 Harrison Ave., Harrison, N. Y., **$166,196.** CD 5/26—ENR 6/3.

†Washington—U. S. Eng., 800 3 Ave., Seattle, bldgs., King Co., to Foster & Kleiser Co., 5 Ave. N. and Roy St., Seattle, **$100,000-$500,000.**

★**Alta., Admonton**—Wartime Housing, Ltd., 55 York St., Toronto, Ont., 250 homes, to Bennett & White Constr. Co. Ltd., 6 James Richardson Bldg.. **$1,250,000.** Rule, Wynn & Rule, 254 Birks Bldg., superv. archts. CD 5/28—ENR 6/3.

COMMERCIAL BUILDINGS

PROPOSED WORK

Calif., Richmond—Fox-West Coast Theatres. 988 Market St., San Francisco, theatre, 1,000 seating capacity. $150,000.

Calif., South San Francisco—George Arthur & Sons, 941 St. Claremont St., San Mateo, 47 residences. $4,000 each.

Kan., Kansas City—Bethany Hospital, 12 and Reynolds Sts., hospital addn. $300,000 Will apply for FWA funds.

★**N. J., Trenton**—John E. Warner & Son, 515 Evergreen Ave., Brooklyn, N. Y., plans by McMurray & Schmidlin, 968 Stuyvestant Ave., Union, 154 unit, 2 story, brick veneer defense housing. $565,000.

Tex., College Station—Methodist Episcopal Church, Rev. F. A. Buddin, supt. Dallas Dist., 5217 Live Oak St., Dallas, new chapel and student center bldg. $150,000.

Tex., Galveston—First Mortgage Co. of Houston, Inc., M. Esperson Bldg., Houston, 35 frame dwellings. $150,000.

Tex., Houston—Mrs. L. Detering, 1727 Palmetto St., 23 concrete dwellings, facilities, utilities, etc. $150,000.

Wis., Manitowoc—G. Tilkens, 1301 Emilie St., Green Bay, 34 residences.

BIDS ASKED

Tex., San Antonio—Bexar Lumber Co., 2716 Nogalitos St., 25 frame type dwellings, utilities, facilities, etc.

CONTRACTS AWARDED

Ala., Tuscaloosa—H. Pritchert, 527 23 Ave., fifty 1 story, frame residences, to Morgan & Holloman Co., 2003 Queen City Ave. Est. **$200,000.**

Calif., San Bernardino—McCray & Joosten Bldg. Corp., 443 4 St., one hundred five 25x35 ft., frame, stucco dwellings, to McGrew & McCray, 443 4 St. **$315,000.**

Me., Brunswick—Cumberland Corp., Hamilton Shields, Highland Ave., Portland, eleven 2 story apartment bldgs. Owner builds. Hutchins & French, 11 Beacon St., Boston, Mass., archts. Bids 5/18. CD 5/6—ENR 5/13.

Mass., Springfield—Burrey Mann, Inc., c/o H. J. Tassier, archt., 220 Dwight St., 85 unit 1 story, 24x30 ft. dwellings, Arden St. Owner builds. **$289,000.**

Mich., Dearborn—Private interests c/o Chas. N. Agree, archt., 1140 Book Tower, Detroit, general contract 128 frame housing units, to H. Silberstein, 930 Penobscot Bldg., Detroit; electrical contract, to Woodridge Welland Electric Co., 15851 Harrison Ave., Detroit. Est. **$350,000.**

N. J., Caldwell—Eumsey Park, 46 Ridge Rd., North Arlington, 2 story, brick veneer, frame apartments, Bloomfield Ave. and Prospect Sts., separate contracts, **$221,107.** CD 6/4—ENR 6/10.

R. I., Middletown—Sunray Corp., Kelly Corp., Forest St. Pl., Arlington, Mass., 64 unit single frame houses. Owner builds. **$250,000.**

INDUSTRIAL BUILDINGS

PROPOSED WORK

Calif., Fresno — PLANT — Naman Packing Co., 3232 E. Tulare St., rebuilding plant, destroyed by fire. $40,000-$50,000.

Mass., Beverly—FROZEN FOOD PLANT—Owner, c/o Beverly Chamber of Commerce, 242 Cabot St., 500 unit capacity frozen food storage plant. $40,000.

Mich., Detroit — PLANT — Continental Motors Corp., 12801 E. Jefferson Ave., 1 story, 130x270 ft. brick, steel, stone plant addn. Russell Eng. Co., 607 Shelby St., engr.

Minn., Browerville—PLANT Todd Dairy Co-op., Browerville, 1 and 2 107x145 ft. milk dehydrating plant, tile, concrete fdn. $90,000 for bldg. deposit $15. Klinger, Hubbard & Goh S. Barstow St., Eau Claire, W , arch

Mo., St. Louis—PLANT BLDG.— Steel Co., 6700 Manchester Ave., Zone 1 lets contract 3 story, 50x150 ft., brick, con. office bldg. for steel plant, Wal Kraft and Manchester Aves. Paolin Schmidt, 1623 Arcade Bldg., Zone 1, a

N. J., Bloomfield — FACTORY — W house Elec. & Mfg. Co., MacArthur plans by W. L. Heilman, Mahoney Pittsburgh, Pa., 2 story, brick, concret tory addn.

N. J., Jersey City and Bayonne—FAC —Western Elec. Co., 100 Central Ave., ny, factory, general repairs, alter Hudson Blvd., Jersey City-Bayonne Cit

N. J., Totowa—PLANT—North Jerse Auction, Inc., 582 McBride Ave., W., son, soon lets contract 2 story, cinder egg auction bldg. Chas. Horton, 22 C Ave., Newark, archt.

O., Jackson — PLANT — Jackson De ment Co., sub-grade apple processing $30,000-$50,000.

Tex., Harlingen — WAREHOUSE — Butt, c/o Butt Chain Stores System, C Christi, 2 story, brick, rein.-con. ware 223 N. F St. $40,000.

Tex., Harlingen — STORAGE and DE STRATION—Crossland Home Appliance 113 N. A St., 1 story, 100x140 ft. brick, con. storage and demonstration bldg. $4

Tex., Laredo — PLANT — Border Pl Mills, planing mill. $40,000.

Wis., Sheboygan—SHOP—Hayssen Mfg N. 13 St. and St. Clair Ave., plans by Stubenrauch, 708 Erie Ave., 1 story, 4 ft. steel, brick shop addn., concrete fd

Alta., Edmonton—PLANT—Edmonton Shook Co., Ltd., 834 Tegler Bldg., 2 frame structure, concrete fdn.

B. C., Ladner—PLANT—The B. C. Co., Ltd., plant. $100,000.

Ont., Belleville—PLANT—Mead Johns Co. of Canada Ltd., Belleville, plant addn

Ont., Orillia—PLANT—Vollans Indu Ltd., Orillia reconstructing plant. $50,00

Ont., Sudbury—PLANT—J. J. Mackey 4 Durham St., mfg. plant, $40,000.

Ont., Toronto—PLANT—Bridgens Ltd., W. Richmond St., plans by G. M. Wes Victoria St., mfg. plant addns.

Ont., Toronto — PLANT — Dominion M ware Industries, Ltd., c/o R. F. Wilson, ba ter, 85 W. Richmond St., metal products plant. $40,000.

★**Que., Drummondville** — FACTORY — Celanese, Ltd., Drummondville, fac mfg. plastics and chemicals. $5,000,000,

BIDS ASKED

Bids Asked June 28

N. J., Princeton Junction—INTERLOCK —Pennsylvania R. R., C. E. Adams, ch. e Penn Station, New York, N. Y., 2 s bsmnt., brick interlocking bldg.

CONTRACTS AWARDED

Calif., Ceres—PLANT—Earl Peterson Associates, Whitmore Ave., fruit dehyd plant, to H. J. Sorensen, Rt. 4, Box Modesto. Est. **$50,000.**

Calif., San Diego—FACTORY—Adel P sion Products Co., 10737 Van Owen St., N Hollywood, 2 factory bldgs., 167x262 ft. 42x122 ft., to Harnish Co., 816 W. 5 St., Angeles, approx. **$97,000.**

Conn., New Haven—FOUNDRY—New H Malleable Iron Co., C. M. Brennan, pres., Clinton Ave., 1 story, 70x250 ft. foundry a 40x70 ft. annealing plant, Clinton Ave., Mott-Mohr Constr. Co., Inc., 440 Elm St. **$45,000.** L. F. Caproni, 1221 Chapel St., e Bids 6/3.

Ill., Chicago—FACTORY—Sivyer Steel C ing Co., 3120 S. Wood St., 1 story, 24x200 concrete, steel factory addn. to L. Krumd 3654 S. Damen St.

Mo., St. Louis — WAREHOUSE — L. Scheiner, 2307 North 11 St., Zone 6, 2 s 60x62 ft., brick warehouse, concrete fdn., Atlas Constr. Co., 3227 North Broad Zone 7. Est. **$40,000,** incl. equip.

N. J., Hillside (br. Elizabeth)—PLAN Cooper Alloy Foundry Co., Bloy St., story, 50x75x240 ft. concrete block, b plant addn., to Clifford Scheer, 540 N Ave., Union, **$40,000.** Walter Pfeiffer, Newark Ave., Elizabeth, archt.

N. Y., Jamestown—PLANT—Crescent Co., 3 story, bsmnt., brick, steel conc plant addn., Harrison St., to L. Ludwig West Main St., Falconer. Est. **$100,000.** & Tinkham, Bailey Bldg., archt. Awa 6/12.

Sask., Saskatoon—PLANT—Intercontine Pork Packers, Ltd., 7 E. 11 St., brick, fr plant addn., rein-con. fdn., to A. W. H Co. Ltd., 502 Grain Bldg., about **$80,000.** 5/26—ENR 6/10.

For Proposal Advertisements see p. 2

OFFICIAL PROPOSALS

Official notices of bids wanted on construction and related work, equipment and material for government, state, municipal departments and private enterprises

TE: THE RATE FOR OFFICIAL PROPOSAL ADVERTISING IS 50 CENTS PER LINE (OR FRACTION) PER INSERTION

*OPY **RECEIVED** UP TO 12 NOON TUESDAY FOR ISSUE OUT THURSDAY SUBJECT TO SPACE OPEN FOR LAST MINUTE ADS*

*END **COPY** TO OFFICIAL PROPOSAL DIVISION, ENGINEERING NEWS-RECORD, 330 W. 42ND ST., NEW YORK, N. Y.*

: June 30, 1943 (146)

State Highway Works

ate Department of Public Works, Divi- of Highways, Albany, N. Y.—Pur- t to the provisions of Chapter 63 Laws 936, as amended, sealed proposals will eceived by the undersigned at the State e Bldg., 13th Floor, Albany, N. Y., l one o'clock p. m., eastern War Time, Wednesday, June 30, 1943, for the wing project: Maps, plans, specifica- s, and proposal forms may be obtained the office of the Division of Highways, any, N. Y., and at the office of the rict Engineer noted below, and may be at the office of the State Department Public Works, State Office Building, m 898, Worth and Center Streets, New k City. The deposit for plans and pro- l forms for each contract containing 15 sheets is $5.00; 16 to 30 sheets, 00; over 30 sheets, $20.00. A refund be made in full to bidders for the rn of one set in good condition within days of award or rejection of bids; nd for all other sets in good condition, ilar period, will be 50% of deposit.

ract and nty	Type	Name	Deposit for Plans	Bid Deposit	Priority Rating
P. J. Lamb, Acting District Engineer, 353 Broadway, Albany, N. Y.					
3-4 toga	Repairs to Bridge	Bridge No. 2 on Snake Hill —Saratoga Lake Outlet S.H.8276	$5	$4,500	CMP REG.5A AA-2X

pecial attention of bidders is called to eneral Information for Bidders" in the posal, specifications, and contract agree- nt.

Proposal for the contract must be sub- tted in a sealed envelope with the name number of the contract plainly endorsed the outside of the envelope. The pro- al must be accompanied by cash, draft certified check payable to the order of ate of New York, Division of the Treas- ," for the sum as specified in the ertisement and the proposal. The reten- n and disposal of the bidding check, the ecution of the contract and bonds shall form to the provisions of the Highway Law, as set forth in "Instructions to Bidders."

Minimum Wage Rate per hour for above work shall be as follows:

County	Skilled Labor	Intermediate Grade Labor	Unskilled Labor
Saratoga..............	$.75	$.65	$.65

UNLESS SHOWN OTHERWISE IN THE ITEMIZED PROPOSAL FOR EACH PROJECT.

The right is reserved to reject any or all bids.

Chas. H. Sells,
Supt. of Public Works.

"I bid---"

THE moment you submit your figure on a contract job, you decide the outcome. You win or lose, on the figures you quote.

NATURALLY, material and time specifications must be met. You can't cut cost—or corners—here. But there *is* one spot in the bid that you *can* do something about. That is the efficiency of equipment or techniques you use.

TOO frequently, operating efficiency, resulting from technological improvements, gives one bidder a competitive advantage over the others. That is the hidden factor in every bid that needs constant watching.

THE advertising of equipment manufacturers should have a vital interest, therefore, for ALL Contractors—particularly those who bid on advertised Construction Contracts. It can pay you big dividends to check the ads in each issue.

Bids: July 9, 1943 (144)

For Sale
Constructions Materials

STEEL SMOKE STACK: 216 feet high, 5 feet 8 inches diameter, weight 75,000 pounds. Suitable for factory or other large building. Will be dismantled by city forces and placed in sections at side of City Hall ready for removal by purchaser. Call or write City Purchasing Department, room 506 City Hall for bid forms. Stack may be seen at same address. Offers will be received until 10:00 A. M., Friday, July 9.

CITY OF MILWAUKEE
CENTRAL BOARD OF PURCHASES
CITY HALL, MILWAUKEE, WIS.
JOS. W. NICHOLSON
City Purchasing Agent

Bids: July 8, 1943 (145)

Six (6") Inch Dredge
Sale or Rent

The Board of Chosen Freeholders of the County of Hudson will receive bids at the meeting of said Board to be held Thursday, July 8, 1943, at 12 o'clock noon, Eastern War Time, for the sale or, as an alternate, for the rental of 6" gasoline engine driven hydraulic cutter dredge. The dredge is now located in the Penhorn Creek, Secaucus, Hudson County, New Jersey, and where it can be seen by prospective bidders.

Complete specifications and form of proposal and arrangements for the inspection of said dredge can be made by communicating with Frank J. Radigan, County Engineer, Court House, Jersey City, New Jersey. Each bid must be accompanied by a certified check in the sum of One thousand dollars ($1,000.00) made out to the order of the County of Hudson.

BOARD OF CHOSEN FREEHOLDERS COUNTY OF HUDSON
William P. Heffron,
Clerk

Official Proposals Columns
of ENGINEERING NEWS-RECORD

are MUST reading, each week, for contractors, engineering-construction companies, equipment and materials manufacturers, all over the United States.

. . . and used regularly for over 50 years by government, state, county and municipal departments for advertising bids.

Official Proposal Division
ENGINEERING NEWS-RECORD
New York City

EMPLOYMENT OPPORTUNITIES

RATE: 10 CENTS A WORD, MINIMUM CHARGE $2.00

Positions Wanted **(full or part time individual salaried employment only), ½ the above rates, payable in advance**

Box Numbers **in care of any of our New York, Chicago or San Francisco offices count 10 words additional in undisplayed ads.**

Discount **of 10% if one payment is made in vance for four consecutive insertions of undispl ads (not including proposals).**

Copy for new advertisements received until 10 A. M. Friday for Thursday's issue

POSITIONS VACANT

These Positions Vacant advertisements are published subject to agreement by the advertisers not to consider applicants now employed on war work unless they obtain written release from present employer.

GROUTING MAN — Thoroughly experienced and capable of handling diamond drilling and grounting large dams. Please state draft status, salary and experience. Man free to travel. P-612, Engineering News-Record, 520 N. Michigan Ave., Chicago, Ill.

WANTED Asphalt layer Foreman who can take complete charge of laying 75,000 tons Hot Asphalt pavement. Send brief outline of experience and salary expected in first letter. Man with following preferred. Write P-623, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

FOREMAN, Masonry restoration. Experienced steam cleaning; tuck pointing; rigging. Starting salary $75.00, good future, permanent. Referenced required. P-658, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

ENGINEERS, Civil or Electrical, for work in South America. Familiarity with Spanish or Portuguese required. State education, experience and other qualification. Apply P-663, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

POSITIONS WANTED

PROJECT MANAGER—Construction: Available at completion of present assignment on a large plant in a foreign country, about 60-90 days. PW-618, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

CONSTRUCTION SUPERINTENDENT or Master Mechanic, specialist on gasoline fuel storage. Construction; operations; maintenance; or alterations; mechanical pump or hydraulic syst ms, Army and Navy project experience: 39 years of age, will go anywhere, salary $100—Address—H. W. Hotaling, 23 Melrose Ave., East Orange, N. J.

CIVIL ENGINEER: 25 years experience on Railroads; Highways; Docks; Bridges; Industrial Plants; Transmission Lines and Defense Project. Locations; Layouts; Design; Estimates and supervision of construction work. PW-627, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

BUILDING CONSTRUCTION EXECUTIVE — Age 53. Thoroughly understands Estimating, Purchasing, Sub-Letting and Office Routine. Desires position of responsibility. Now completing 9 months project as Contract Supervisor. PW-634, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

ARCHITECTURAL AND STRUCTURAL ENGINEER. Reinforced Concrete, Steel, Masonry and Timber Structures. Good Draftsman. Available at once. P. O. Box 303, Jellico, Tenn.

DIVER: 21 years experience. Available now. Go anywhere. Also capable to act as foreman on heavy construction and dock work. PW-642, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

MASTER MECHANIC, 20 years experience, machine shop, contractor's equipment, and heavy trucks. Will go anywhere. PW-643, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

PROJECT MANAGER, Construction Superintendent, Assistant Superintendent or General Foreman. Age 50, perfect health. Very highest references. Experience Housing, Hospitals, Water Supply, Sewerage Disposal, Factory Buildings, Airports and General Construction. Location immaterial. Just completing Air Base of latest type Construction. Will be available in week or ten days. Have good following of capable personnel. Personal interview appreciated. PW-644, Engineering News-Record 520 N. Michigan Ave., Chicago, Ill.

POSITIONS WANTED

STRUCTURAL CONSTRUCTION, Civil Engineer 18 years experience, design, estimates and construction—all types of structures. Capable, efficient, responsible. Age 39. Location immaterial. Available immediately. PW-645, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

CIVIL ENGINEER, graduate; 34 years experience; design and construction; water supply; industrial plants; power plants; hydro-electric developments. PW-657, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

CHIEF ENGINEER-ESTIMATOR; 34 years in construction, recently on large Government Contract, now available. PW-651, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

CIVIL ENGINEER, 18 years design, construction, specifications, estimates, subways, buildings, foundations, drydocks, piers, bulkheads. Speaks Spanish. Will travel. PW-655, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

CONSTRUCTION ENGINEER-Superintendent. Graduate architectural engineer with 15 years experience as executive in administrative, technical and practical supervision large projects. Successful record as director in planning, estimating and actual construction military airport, reservation and armories, sewage and water plants and systems, courthouse, schools and municipal buildings, roads and streets, dams, levees and flood control. Can get results and work under pressure. Desires connection of responsibility anywhere in construction or production industry. H. S. Carney, 27 Signal Hill Blvd., East St. Louis, Illinois, Phone Express 461.

CHIEF OF PARTY—Age 36. 12 years experience on surveys, mapping, construction layout and supervision; on highways, bridges, dams, and power houses. Capable of planning, organizing, and executing any type of surveys; and supervising construction on earth, rock and concrete construction. Any location considered. Box 7, Peru, Vermont.

CIVIL ENGINEER, twenty years experience highway location and construction, airports, military bases and public utilities. Southern location. H. L. Raburn, P. O. Box 181, Belhaven, North Carolina.

ESTIMATOR, Hospital, defense projects, all types construction, day, hour, week. PW-660, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

ESTIMATOR, Progressive Cost, 30 years experience, highly skilled in pre-cut and prefabricating. Available now. PW-661, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

CONSTRUCTION SUPERINTENDENT — General Foreman, age 39, U. S. Citizen, wants connection with contracts on foreign construction. 15 years experience charge of construction: concrete-utilities, grading on airports and buildings. Speaks English, Spanish, Portuguese fluently. Draft: 3B. PW-662, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

CONSTRUCTION SUPERINTENDENT — Age 47, looking for heavy construction work in United States. Last two positions was in charge of building Training Stations (Docks and Piers). Experienced in all types of Heavy Construction, Dams, Power Houses, Bridges, Industrial Buildings, Factory Buildings, Drainage, etc. W. W. Wyman, Shelburne Falls, Mass. Tel. 533.

CONSTRUCTION SUPERINTENDENT, 9 years experience job engineer. 17 years in charge construction, steam, power and industrial plants, age 53, not a graduate, consider any location. PW-665, Engineering News-Record, 330 W. 42nd St., New York, N. Y.

POSITIONS WANTED.

CONSTRUCTION SUPERINTENDENT, P ject Manager, graduate Civil Engineer, years experience in charge construction of dustrial, commercial, public works, housi Recently, Navy structures, Army Canto ments. Defense plant corporation. PW-6 Engineering News-Record, 330 W. 42nd S New York, N. Y.

OFFICE MANAGER—Age 38. Draft exempt. years diversified experienced. 5 years co struction. Accounting, payrolls, taxes, perso nel, placement, material and equipment, cos and methods. Bureau of Yards and Doc Accounting methods. Thoroughly capable Organizing and Supervising new jobs. Can fu nish eligible experienced construction offi personnel. Present work nearing completio PW-659, Engineering News-Record, 330 42nd St., New York, N. Y.

WORK WANTED

EQUIPPED SURVEY PARTIES for all typ of survey or construction work. Any loc tion. Harwood, 258 Broadway, New York Cit

POSITIONS VACANT

Salesman by manufacturer wellpoint systems and construction equipment. CMP, AA1 rating. Executive ability, construction background on foundation work. Experience selling construction equipment preferred. One to cover 500-mile radius based Jacksonville, other based Chicago. Real opportunity for a worker. Write detailed experience, draft status, references, salary desired, etc. Interviews New York, Chicago, or Jacksonville. Post-war prospects especially good.

SW-675, Engineering News-Record
330 West 42 St., New York City

To Employers Who Advertise for Men:

The letters you receive in answer to your advertisements are submitted by each of the applicants with the hope of securing the position offered.

When there are many applicants it frequently happens that the only letters acknowledged are those of promising candidates. Others do not receive the slightest indication that their letters have even been received, much less given any consideration. These men often become discouraged, will not respond to future advertisements and sometimes even question if they are bona fide.

We can guarantee that *Every Advertisement Printed in the Searchlight Section Is Duly Authorized.* Now won't you help keep our readers interested in this advertising by acknowledging every application received, even if you only return the letters of unsuccessful applicants to them marked, say, "Position filled, thank you." If you don't care to reveal your identity mail them in plain envelopes.

We suggest this in a spirit of helpful co-operation between employers and the men replying to Positions Vacant advertisements.

Departmental Staff

McGRAW-HILL PUBLISHING COMPANY, INC.

"Put Yourself in the Place of the Other Fellow"

AIL TO THE STEEL HAT FIGHTS FOR US T HOME!

ssential steel is more than that used in guns and nks and ships . . . the formidable weapons of an roused Democracy . . . the steel that goes away to ht for us. The steel that fights for us at home is qually essential. Shown in the photograph are tons steel that will never be used in battle, yet without hich the guns and tanks and ships could not be made well or so fast. Here, among other objects of steel, e hooks, sheaves, ropes, chain, stays, pipe, wheels, lumns, beams, trusses and ladle. Each of these jects is indispensable and none could be made satis- ctorily of any other metal than steel.

This is the steel that fights for us at home . . . that nables us to build and to produce the weapons and material we must have in order to win this war. The pipe for oil refineries . . . the shells that provide the forms and preserve the integrity of concrete piles . . . the nails that fasten the siding on cantonment barracks . . . such uses of steel, in reasonable quantities for indispensable items that cannot be suitably or safely made of other materials, are promoting the war effort and speeding the day of victory.

- **THE SCOPE OF RAYMOND'S ACTIVITIES** *includes every recognized type of pile foundation—concrete, composite, precast, steel, pipe and wood. Also caissons, construction involving shore protection, ship building facilities, harbor and river improvements and borings for soil investigation.*

RAYMOND
CONCRETE PILE COMPANY
140 CEDAR STREET, NEW YORK, N. Y.
Branch Offices in Principal Cities

Salient POINTS IN CMP
Re: *Buying Wire Rope*

WHEN BUYING WIRE ROPE FOR INCLUSION IN A PRODUCT YOU ARE MAKING,

REMEMBER: Wire rope is a Controlled Material • Your orders should bear the abbreviated allotment numbers—such as: W-8-20 • Preference ratings on orders bearing allotment numbers are valueless. Wire rope producers are required to fill authorized controlled materials orders without regard to preference ratings • The allotment number on a wire rope order must show the actual month of delivery and *not* the quarter in which delivery is required.

WHEN BUYING WIRE ROPE ASSEMBLIES,

REMEMBER: Assemblies consisting of wire rope and fittings are Class B if they are air-borne, but Class A if they are not. If Class A, you must furnish us with an allotment of the steel required for the wire rope, and for the fittings if they also are Class A. If Class B, you must not furnish an allotment of steel for either the fittings or the rope. In either case, your orders must bear allotment numbers or they cannot be considered *delivery orders* for products containing controlled material.

WHEN BUYING WIRE ROPE FOR MAINTENANCE, REPAIRS, OR OPERATING SUPPLIES,

REMEMBER: Subject to the limitations imposed upon you by any "P" order under which you may be required to operate, and provided you produce a product or are engaged in any business in Schedules I or II of CMP Reg. 5, the symbol MRO on a wire rope order, followed by any appropriate certification, makes your order an authorized controlled material order, and • A preference rating is not required, because wire rope is a controlled material • Just be sure to observe the quantity restrictions stated in Par. (f), CMP Reg. 5.

WHEN BUYING WIRE ROPE IN SMALL QUANTITIES FROM WAREHOUSES,

REMEMBER: You don't need an allotment number or a preference rating for wire rope if • 1—You order in amounts of $10 or less, • or 2—If you don't buy more than 4,000 pounds per calendar quarter, or • 3—If you are authorized to buy it under Food Production Order 3 • Just be certain that you don't exceed the inventory limitations stated in CMP Reg. 2 • Certify your orders as stated in CMP Reg. 4.

AMERICAN CABLE DIVISION Wilkes-Barre, Pa., Atlanta, Chicago, Denver, Detroit, Houston, Los Angeles, New York, Philadelphia, Pittsburgh, San Francisco, Portland, Tacoma

AMERICAN CHAIN & CABLE COMPANY, INC. (May 20, 1943)

BRIDGEPORT, CONNECTICUT

ESSENTIAL PRODUCTS . . . TRU-LAY Aircraft, Automotive, and Industrial Controls, TRU-LOC Aircraft Terminals, AMERICAN CABLE Wire Rope, TRU-STOP Brakes, AMERICAN Chain, WEED Tire Chains, ACCO Malleable Castings, CAMPBELL Cutting Machines, FORD Hoists, Trolleys, HAZARD Wire Rope, Yacht Rigging, MANLEY Auto Service Equipment, OWEN Springs, PAGE Fence, Shaped Wire, Welding Wire, READING-PRATT & CADY Valves, READING Electric Steel Castings, WRIGHT Hoists, Cranes, Presses . . . *In Business for Your Safety*